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DICTIONARY OF POLITICAL ECONOMY

DICTIONARY

OF

POLITICAL ECONOMY

53920

EDITED BY

R. H. INGLIS PALGRAVE, F.R.S.

Ore trahit quodcumque potest atque addit acervo.

VOL. III

N—Z

Ixa-d-53

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London

MACMILLAN AND CO., LIMITED

NEW YORK: THE MACMILLAN COMPANY

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TO THE DEAR MEMORY OF

Sir Francis Palgrave, K.H., and Elizabeth, Lady Palgrave

HIS PARENTS, TEACHERS, FRIENDS

THIS WORK IS DEDICATED BY

R. H. INGLIS PALGRAVE

PREFACE

THE aim of this work is the assistance of the English-speaking student of Economic Science to the better understanding of the questions in which he is interested. These questions, while dealing with matters of ordinary life, are often more abstruse and intricate than appears to a superficial observer, and they require careful thought and study to unravel.

The performance of this task, difficult and laborious enough in itself, has not been rendered more easy by the fact that the work has to cover an absolutely new field in English literature. There exists at the present time no completed work in our language which exactly fills the same place, or which could in any way serve as a guide. The laborious commencement made by MacLeod extends only as far as the letter C. The *Standard Library Cyclopædia of Political, Constitutional, Statistical, and Forensic Knowledge*, 1860, does not cover the same ground; nor does the *American Cyclopædia of Political Science, Political Economy, and United States History*, 1888, undertake what has been attempted here. In the French and German languages there are very valuable works on the subject, among which may be cited the *Dictionnaire de l'Économie Politique*, edited by Coquelin and Guillaumin, 1853; the *Nouveau Dictionnaire d'Économie Politique*, edited by Léon Say and Joseph Chailley, 1891; the *Dictionnaire des Finances*, edited under the direction of Léon Say by Louis Foyot and A. Lanjolley, 1889; and the *Handwörterbuch der Staatswissenschaften*, edited by Conrad, Elster, Lexis, and Loening, the first part of the first edition of which was published in 1890, the second edition having been commenced in 1898. These works have been studied and their arrangement considered. But the dictionaries which cover the corresponding ground in other languages, though written by very competent and erudite men, could not serve exactly as models for a book intended for the English student, whose requirements had particularly to be provided for. Yet, although specially written for the English-speaking races, it is believed that this book may claim that international or cosmopolitan character which should mark any work on economic science; for, among the contributors, besides the many very able English, are numbered some of the most distinguished American and foreign Economists.

I now thankfully bring my work to a conclusion, greatly indebted to the consideration of my publishers, Messrs. Macmillan and Co., who have kindly waited till a book, promised, with a sincere expectation of fulfilment, in three years, has

been completed in the twelfth year, and who have also, greatly to the advantage of the reader, allowed an extension of space from two volumes to three, thus permitting a greater fulness of treatment than could otherwise have been possible. The time spent in the actual construction of the work represents, however, but a comparatively small part of that period during which it has been the subject of my thoughts, a period which covers a very large part of my life. And yet after these years of labour I am most deeply conscious not only of omissions but also of imperfections inevitable in a work of this description.

I may now turn, and with more pleasure, to an explanation of the plan which has been followed. It was obvious that the limits of space did not permit an absolutely exhaustive treatment of most, if of any of the subjects contained in the Dictionary. Each heading, however, has been dealt with as fully as possible. Every effort has been made to give the most complete information attainable by means of cross-references to the other articles contained in the work which take up different portions of the subject and will thus assist the reader. Clearness has not been sacrificed to the exigencies of space. Where, indeed, clearness could not be attained without employing some considerable space or even some repetition, this has been allowed, and, equally wherever possible, care has been taken to supply an adequate bibliography of each subject.

It is thus hoped that the Dictionary will assist the student to carry out any special investigation, by giving him some preliminary information, and by referring him to the best authorities. In selecting these authorities, while due attention has been given to the more important writers, reference has also been made to many whose works, valuable in themselves, are less generally studied, and who may perhaps have only contributed a monograph on the particular subject under notice. The works of men comparatively unknown, remote from us through the countries where they lived or the period when they wrote, are often of considerable service in elucidating particular cases or illustrating special points in history. The same principle has been applied to the biographies. Considerable attention has been given to the less known writers, for the same reason. It is easy for the student to find out all that he requires about the works of the more celebrated men, while he frequently finds it difficult to obtain information about the more obscure, a knowledge of whose investigations, however, may be necessary to him. Better that fifty should consider an explanation superfluous than that one should find a difficulty unsolved.

It may be claimed for the Dictionary that it contains many examples of original research into the literary history of unknown English worthies whose writings have not hitherto been adequately discussed. The biographical articles have been confined to notices of writers no longer living with the single exception of Prof. Léon Walras, who so closely carried on the work of his father Prof. Antoine Walras that it was not possible to mention the latter without also describing the works of his son. The works of authors now living are quoted in connection with the subjects which they elucidate.

The turn which the study of economics has taken in recent years has necessitated corresponding developments in this work. The historical side of the study

has been constantly remembered as well as the more recent effort to gain greater exactness through the employment of mathematical methods.

In connection with the first branch of the subject, articles will be found both on the Historical Method and on the Historical School of Economists. The early history of economic movements has been explained with reference both to theory and to practice, as in the articles on the Canon Law and Gilds, and the Mercantile System—all of which may be claimed as still having survivals in modern thought. Some space also has been devoted to short histories, as of the trading companies formerly so powerful in this country, and of the Hanseatic League, whose influence on the continent of Europe extended so widely.

In connection with the employment of mathematical methods the use of Diagrams is also explained, as well as the Graphic Method. These articles show the use which may be made of Diagrams both in abstract theoretic exposition and in the explanation of concrete economic phenomena. A practical application of these methods for the use either of students or business men will be found in the article on Polegraphy, the name given to a graphic method recently devised to enable those concerned to obtain a clear view for practical purposes of complex combinations of operations either on the stock or produce exchanges. This article contains, it is believed, the first explanation of this method available for the English reader.

Whatever method we use we must ever bear in mind the necessity of constant, careful, and exact observation of facts. We must "classify our facts before we generalise, and seek for narrower generalisations and inductions before we aim at the highest."

As the limits of space compelled concentration, and this work is intended mainly for the service of students among the English-speaking peoples, the developments of economic thought in other countries, however interesting, have necessarily not received the same fulness of treatment as those which have taken place within our own shores. Yet these subjects have not been neglected.

The Dictionary contains, it is believed, the first attempt which has ever been made in a work of this description to give, under separate heads, an account of the labours of the principal writers and the characteristics of the different schools of economic thought throughout the civilised world.

The work of the economic Schools of England, in which last we may include the growing and powerful body of thinkers in America; the labours of the Schools of Austria, of France, Germany, Holland, Italy, Russia, and Spain, have thus formed the subjects of separate articles. These may be commended to the special attention of the reader. They will help him to understand the various modifications of doctrine and opinion which the study has undergone. And if, in all cases, opinions are not agreed, much may be ascribed to the different requirements of national life in different countries.

The student who examines these articles will find that he is able to carry his investigations further by means of the separate notices of the principal writers named, and of the special subjects to which reference is made.

Thus the reader of the article on the French School will have his attention called to the writings of the many able Frenchmen who have written on Economics,

to the work, for example, of the Physiocrats, and their organs, the *Éphémérides* and the *Nouvelles Éphémérides*—the only known complete set of which was liberally placed at the disposal of Dr. Bauer, who wrote the article on that subject. The many important writers referred to in the article on the German School show, especially in recent years, the influence of the great German thinkers, Kant, Fichte, and Hegel, who, though they can scarcely be claimed as economists, yet influenced and modified economic thought far beyond the boundaries of their own country. The student of Economics will do well to examine these articles carefully, as well as those on the Italian, Russian, and Spanish Schools.

These articles contain much information on points in the economic development of the countries concerned, which may be new to the readers of the Dictionary. In our own country, to give merely two examples, the spirit of enterprise which has marked British character and peopled British colonies has been largely influenced by the English Law of Wills, which has fostered the energetic side of life through the necessity for hard work. A reference to the articles on this subject will show how completely the English law differs in principle from the law of other European countries, and how far more free in this respect the power of bequest in this country is. Again as to agricultural matters it is well to be reminded that in our older English land-holding system the leases for a long term, formerly possessed by English yeomen, helped to develop a class whose existence strengthened an interest of the highest economic importance to the country.

The plan of the work has been set out all through as broadly as possible. Due consideration has been given to theory and method. That so often misinterpreted expression, the Laws of Political Economy, is explained—that these are not rules to be obeyed but scientific uniformities. There are also articles on the Method of Political Economy and on Political Economy itself, with explanatory articles on the main headings into which Economic Method is divided.

The practical side of Economics also has not been neglected. Articles are given on Business subjects, on Banks, Clearing Houses, Commercial Crises, Docks, Railways, Insurance, Bills of Exchange, and the Precious Metals, with a summary of recent events in Silver Legislation in the United States.

The use of statistics is also explained, with articles on the kindred subjects of Index Numbers and the Tabular Standard.

Financial subjects are dealt with, including Taxation, which, according to the manner in which it is levied, exercises so vast an influence on the welfare of a country. Articles will be found on the National Debt, on the Budget, on Finance generally, on Export and Import Duties, on the Income Tax both in England and abroad, on Graduated Taxation, on Death Duties, on Taxation as a whole, on the Internal Customs formerly in use in France, and on Octroi Duties.

But levying taxation, though one of the most important, is not by any means the only manner in which the powers exercised by legislation influence the welfare of a country. Government regulation of Industry, the Factory Acts, the laws affecting Labour generally, may be mentioned as subjects dealt with in this connection.

Perhaps in the legislation on the poor law the influence of economic thought is more perceptible than in any other branch of our administration. A reference to the economic writers of all ages and of all countries who have dealt with questions of charitable relief, and whose biographies will be found in these volumes, will show how universal the difficulty of assisting the poor without pauperising them has always been. The charitably-disposed have often had to deplore the injury which well-meant efforts have inflicted on those for whom help was intended.

The study of these volumes themselves will supply many and complete examples of what has briefly been recapitulated here. I venture to bring to an end this explanation of the object and scope of my work with a passage from one of my father's oldest friends, Mr. Henry Hallam, which I well remember reading with much interest in years past, little as I imagined then how closely it would describe my own feelings at this time.

"An author who waits till all requisite materials are accumulated to his hands, is but watching the stream that will run on for ever; and though I am fully sensible that I could have much improved what is now offered to the public by keeping it back for a longer time, I should but then have had to lament the impossibility of exhausting my subject. ΕΙΙΟΙΕΙ, the modest phrase of the Grecian sculptors, well expresses the imperfection that attaches to every work of literary industry or of philosophical investigation. But I have other warnings to bind up my sheaves while I may,—my own advancing years, and the gathering in the heavens."

In conclusion I have to express my sincere thanks to those who have assisted me by contributing to these volumes, and who have taken pains and trouble of which only the Editor can be aware. Specially my thanks are due to Dr. James Bonar, Prof. A. Caldecott, Prof. F. Y. Edgeworth, Mr. Henry Higgs, Dr. Ernest Schuster, and Mr. H. R. Tedder, who have helped in many ways as well as in preparing the work for the press, and to Miss Ethel Faraday for the labour and great attention she has bestowed on the Index.

My earnest hope as Editor is that this work may promote and facilitate the study of sound economic doctrine, the knowledge of which is essential to the lasting prosperity of our country.

R. H. INGLIS PALGRAVE.

BELTON, NEAR GREAT YARMOUTH.
Midsummer, 1899.

La Filosofia è scritta in questo grandissimo libro, che continuamente ci sta aperto innanzi agli occhi (io dico l'Universo), ma non si può intendere, se prima non s'impara a intender la lingua, e conoscer i caratteri, nè quali è scritto.—GALILEO, *Il Saggiatore. Opere*, vol. vi. (ed. 1811), p. 229.

As in going of a way we do not only gain that part of the way which is passed, but we gain the better sight of that part of the way which remaineth; so every degree of proceeding in a science giveth a light to that which followeth. — BACON, *On the Advancement of Learning*, vol. iii. p. 392 (Ellis and Spedding ed., 1857).

In short we are very greatly in want of a Johnson's Dictionary of Political Economy, and possibly it may be in reserve for some young man, now of twenty years of age, to supply the deficiency by the time he shall be five and thirty.—*Lectures on the Nature and Use of Money*, by JOHN GRAY (Edinburgh), 1848, p. 96.

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DICTIONARY OF POLITICAL ECONOMY

NAPOLEON—NATION

NAPOLEON (COIN). The twenty-franc piece of France, issued during the reign of Napoleon I., bears that ruler's name. It is a gold coin of the millesimal fineness of 900, weighing 99·56 grains; its value in sterling is 15s. 10½d. (see FRANC). F. E. A.

NASSE, ERWIN (1829-1890), a distinguished economist, was born at Bonn, and studied there and at Göttingen. He was appointed professor at Basel in 1856, and within the same year at Rostock; in 1860 he became professor at Bonn. He took an active part in political affairs, and sat as a member of the Prussian house of representatives from 1869 to 1879. His most important publications were: *Bemerkungen über das preussische Steuersystem*, 1861;—*Die preussische Bank*, 1866;—*Ueber die mittelalterliche Feldgemeinschaft und die Einhegungen des 16. Jahrhunderts in England*, 1869 (translated into English by Col. H. A. Ouvry, and published by the Cobden Club in 1871, 2nd ed., 1872); *Geld und Münzwesen* in Schönberg's *Handbuch* (2nd ed., 1886); and *Das Sinken der Warenpreise während der letzten fünfzehn Jahre*, 1888. From 1874 till his death Professor Nasse was president of the *Verein für Sozialpolitik*, of which he had been one of the founders. He was associated with Ad. Wagner in the new edition of Rau's *Lehrbuch*, but his collaboration seems to have been, for the most part, merely nominal. He supplied to the *Verein für Sozialpolitik*, in vol. iii., "Die Personalbesteuerung," and in vol. xxvii., "Agrarische Zustände in Frankreich und England." He wrote largely on currency, banking, state-credit, prices, and taxation, contributing many articles on these subjects to economic and other journals. His memoir on the well-known work of "W. Stafford" is of special interest (Zeitschr. d. Staatsw., vol. xix.) (see W. S.). His writings are marked by cautious exactness and moderation. In his general views he was one of those somewhat loosely described as SOCIALISTS OF THE CHAIR (*q.v.*). He warmly eulogises the *Verein für Sozialpolitik*, which was created by that group of economists, as having been the product of the moral conscience of almost all Germany, and as having profoundly modified in a right direction the tendencies of public opinion. He insists on the insufficiency of a free field to individual interests, and the necessity of the application of moral ideas to the national economy through the action of the state (Lippert in *Handwörterbuch der Staatswissenschaften*). J. K. I.

In addition to his eminence as a general economist, Nasse is of particular importance in the history of economic thought for three reasons. His special studies in money, credit, and banking institutions, etc., have won for him a very high place as a monetary critic. In two other respects he must be regarded as a forerunner of movements which have now become very important. He was one of the early and professorial socialists, and did much to modify the mechanical and harsh direction which economic theory had assumed. In addition his studies in the THREE FIELD SYSTEM in England, though its conditions have been subject to much correction, drew attention to a valuable side of economic study. His remarks in this connection display considerable acumen, and though his methods and erudition have been severely criticised, he deserves great credit for seeing at an early stage the necessity of treating many problems from a historical rather than an abstract standpoint. E. C. K. G.

NATION. This word is used in a loose sense to signify any considerable aggregate of human beings, living together in one country, or under one rule. They are generally assumed, with more or less accuracy, to be of one race; but if other bonds are sufficiently powerful to have the same uniting effect as those of blood, the community so held together is regarded as a nation, though its people may spring from various stocks. Thus, we call the Swiss a nation, as well as the French, the Germans, and the Italians. Yet in Switzerland there are French cantons, German cantons, and Italian cantons, in which, not only do the bulk of the people belong to the stock indicated by the name, but they speak the French Ger-

man, or Italian language, as the case may be. The inhabitants of Switzerland are of different races, and use different tongues; but the political ties between them are so strong that they are constantly referred to as a nation. On the other hand, we often find that in common discourse governmental bonds are neglected where the term we are considering is used. No one calls the people of the Austrian empire a nation, though they all owe political allegiance to the occupant of the throne of the Hapsburgs. The usual phraseology describes Austria as a state made up of a number of nations or parts of nations—Germans, Magyars, Slavs, Poles, etc. Between the two ideas, that of blood-unity and that of administrative unity, ordinary speech hovers. The same person who has just mentioned Germans as one of the nations of the Austrian empire, will go on to maintain that the realisation of German unity under the Hohenzollerns in 1871 gave the German nation a leading position in Europe. In the first case he will be thinking of race only; and in the second, of race plus political allegiance. In fact, there is no generally received definition of a nation. Common descent, common language, common history, common religion, common interests, common ideas, hopes, and aspirations,—all these enter more or less vaguely into the current conception, but any one of them may be wanting, or two or three of them may be absent together, and yet the community which lacks them may be called a nation. Its people must, however, possess what Renan rightly regards as essential to nationhood, a common heritage of memories and feelings, and a present desire to continue their common life. A curious reversal of ordinary practice is furnished, at least as far as formal and official terminology goes, by the United States of America. Its people cherish in a remarkable degree the characteristics enumerated above, but their written constitution nowhere applies the term *nation* to them; and a few years ago, a proposal to introduce into the liturgy the versicle "O Lord, bless our nation," was defeated in the convention of the American Protestant Episcopal Church (see Bryce, *American Commonwealth*, ch. ii.). But it must be added, that in common speech and writing the Americans constantly call themselves a nation. If it be necessary to assign a technical meaning to a term so loosely used in ordinary discourse, we may perhaps conveniently define a *nation* as a community whose members are bound together by ties of blood, speech, feeling, and interest, such as do not subsist between them and the rest of the world, and who are also under a common government. This leaves us the term *nationality*, for aggregates of human beings who feel the ties referred to, but do not form one political whole (see NATIONALITY), and enables us to distinguish a *state* from a *nation* or a *nationality*, by laying stress upon the mere fact of political authority without reference to the conditions under which it is exercised (see INTERNATIONAL TRADE).

[Bagehot, *Physics and Politics*, chs. iii. iv.—Maine, *Early Law and Custom*, ch. vii. and *Early History of Institutions*, chs. iii. iv. xii. xiii.—Austin, *Province of Jurisprudence Determined*, Lect. vi.—Bluntschli, *Allgemeine Staatslehre* (Stuttgart, 1875), bk. ii. chs. i.-v.—Renan, *Qu'est ce qu'une Nation?* (1882).] T. J. L.

NATIONAL BANKS (U.S.). See BANKS.

NATIONAL DEBT.

1. Introduction, p. 2; 2. National Debt of United Kingdom, p. 3; 3. The Funding System, p. 4.

1. *Introduction.*

The economic evolution of the system of borrowing by the state proceeds along the same lines as the development of commercial credit in the community. The system of accumulating treasure against unforeseen emergencies was adopted by the ancient world, and is not unknown at the present time. Forced loans were the favourite expedient of mediæval monarchs. Anticipation, or pretended anticipation of taxes was the next step. As industry and independence increased, the despotic methods of the middle ages became intolerable. The growth of private credit suggested the use of public credit; the growth of public debt naturally followed. Holland, as the logical result of its advanced commercial development, was the first nation to contract public debt systematically. England and France followed more slowly. States whose commercial history, if not their existence, is more modern, have found a facility of incurring national debt ready made, so to speak, for their adoption. Consequently this method of acquiring ready money without trouble has been grossly abused, especially by the South and Central American Republics, which obtained large loans without the possibility of paying them, and for purposes utterly wasteful and corrupt.

The general questions of the gradual rise of public borrowing, its effects on industry and thrift, the policy of borrowing in national emergencies rather than increasing taxation, are explained in the article on DEBTS, PUBLIC; a very good statement of them will also be found in M'Culloch's *Taxation and the Funding System* (1st ed., 1845).

(*a*) It is sometimes suggested that a national debt should be permanent. But it is essential to pay it off as soon as possible. The old theories as to the benefit of having a large debt for purposes of investors are not yet exploded in commercial circles, but no economist could be found to support them. On this head see the essay, referred to below, in which Sir R. Giffen showed the propriety of making a serious effort to reduce the national debt of Great

Britain. With increasing population and wealth in any given country, the burthen of a debt previously incurred becomes proportionately less, and its repayment would therefore become easier. It is, however, matter of history that but few countries which have once incurred a debt have made the necessary effort to repay it. The reduction of the debt of the United States is the most striking instance of the recognition of this public duty: but in this case rapid development made the task specially easy. The high credit of many of the British colonies is partly due to the fact that from an early period in the currency of a loan provision is being made for its ultimate repayment. This point will be treated of under SINKING FUND.

(*b*) What is to be considered a heavy debt? The usual test is to compare the debt per head of population in various countries. This is done exhaustively in the article on DEBT, PUBLIC, STATEMENT OF. But it would probably be safer always to compare the proportion of the debt and debt-charge to the annual revenue. Even this fails, for a wealthy people can raise a given annual revenue with much less effort than a poor people. The real burthen of debt is a subject for close local inquiry.

The term "national debt," has been confined in practice to denoting debt owing from a state as an international unit to its own subjects or to foreigners. But debts incurred by municipalities and other local bodies are equally burthens on the industry of the nation; and there are few civilised nations which have not contracted some such. In the case of Great Britain such debts amount to about £260,000,000, or 31 per cent of the national debt proper; in the Australian colonies to at least £11,500,000, or $5\frac{3}{4}$ per cent of the public debt.

2. *National Debt of United Kingdom.*

Probably the last of the forced loans under the privy seal was obtained by James I. in 1604. After the Restoration the favourite method of raising loans was by the issue of tallies in anticipation of revenue. When William III. became king the only recognised debt was £84,888 : 6 : 9, borrowed on tallies in anticipation of duties on French linens. The increase of debt during his reign, which is amply capable of justification, led to "tallies of fictitious loans," and the issue of annuities for lives and terms of years, as well as to the creation of the permanent form of funded debt which gradually superseded all other methods. The low state of public credit at this time is illustrated by an unsuccessful attempt in 1692 to borrow one million on annuities for ninety-nine years at 10 per cent for eight years, and 7 per cent for the remainder of the term. William's government, however, took the first steps to establish public credit: the "banker's debt," raised and repudiated by Charles II. (see EXCHEQUER, CLOSING OF), was finally made part of the national liabilities in 1699: the Bank of England debt, which had its origin in this period, brought ulterior benefits with it.

The following figures account for the greater part of our national debt.

Incurred during William III.'s reign (1688-1702) .	£15,730,439
Anne's reign, war of Spanish succession, etc. (1702-13) .	37,750,667
American War (1775-86) .	121,267,993
French War (1793-1815) .	603,842,171

During the whole period the obligation of repayment was more or less borne in mind; but the net result of the operations in this direction was not very effective (see SINKING FUND).

The national debt of the United Kingdom, as it has stood during the last century, is composed of funded and unfunded debt.

(*a*) The funded debt comprises the debts on account of Bank of England and Bank of Ireland stock, and the South Sea and old East India companies, each of which has an interesting history. It reached its highest point in 1817, when it stood at £796,200,191 (the unfunded debt making up the total national debt of £848,282,477): since that time it has fairly steadily decreased except during the Crimean war. It stood in 1894 at £634,707,994, including the TERMINABLE ANNUITIES. Several schemes of recent years have been directed towards the reduction of capital or interest: the chief of these are the conversion of certain portions of the debt into terminable annuities and Mr. Goschen's great conversion schemes of 1888-89, which chiefly affected the annual charge of debt. The national debt commissioners, first constituted under an act of 1786 (26 Geo. III. c. 31), the members *ex officio* being the Speaker of the Commons, the Chancellor of the Exchequer, the Master of the Rolls, the Paymaster-General, the Governor and Deputy-Governor of the Bank of England, have under them a permanent department, which is charged with the management of annuities and the purchase and cancellation of portions of the debt.

(*b*) The unfunded debt consists of issues of loans for short periods now usually made in order to supply the wants of the state in anticipation of the incoming of the ordinary revenue. It is often referred to as "FLOATING DEBT." It is created in three forms (1) EXCHEQUER BONDS, which have currency for a fixed term of years, not now usually exceeding three, but were first issued in 1853 with a currency of forty years. (2) EXCHEQUER BILLS which run for a few weeks or months as a minimum, and are thereafter liable to be called in at any time. (3) TREASURY BILLS, which are not very dissimilar

from the preceding class. The essential difference between Treasury bills, Exchequer bills and bonds, and funded government securities, is that on the former the State contracts to pay the principal as well as interest, and on the latter the interest only. The amount of unfunded debt in 1894 was £21,446,300 against a funded debt (excluding annuities) of £587,631,096; the average of the three years 1890-92 was over £34,000,000, or more than double the average of the seven previous years. But in the first quarter of 1892-93, £13,000,000 of the floating debt was funded.

The annual *Statistical Abstract* gives an interesting table showing the movement of the debt during the previous fifteen years. In 1880 the aggregate net liabilities of the United Kingdom were £739,501,605, in 1890 they were £684,954,150, and 1894, £664,163,141—year by year, with one small exception, they have been reduced, with a result that is respectable if not remarkable.

3. *The Funding System.*

Any sketch of the history of Great Britain's debt would hardly be complete without some more particular reference to this term. The term "to fund" properly meant nothing more than to undertake a liability for the debt which in point of time should be indefinite, and therefore practically permanent; and to record it as such in the accounts of the state. This term apparently came into use in this country in the latter part of the 17th century, so that the popular title of "the funds" may be considered contemporaneous with our national debt itself. But in practice it became common in the early part of this century to associate the term with undertaking the liability for a greater nominal amount of debt than the amount actually lent to the state; and it was this form of inducing persons to lend money to the state which is specially indicated in the term "funding system." This expedient, resort to which was the natural result of the difficulty of raising loans, appears to have been first adopted in the year 1758: it afterwards became popular. The excess of capital liability incurred by the plan amounted to 75 per cent of the loans raised in 1781 when, in return for £12,000,000 in cash, the State issued stock to the amount of £18,000,000 at 3 per cent and £3,000,000 at 4 per cent, or £21,000,000 in all; this seems to have been the greatest of such excesses. This was the method which gave its particular meaning to the words "funding system"; but it was a mere accident of the system, and not of its essence. The method concentrated a great deal of criticism on itself, and was usually charged with gross extravagance (see M'Culloch's *Taxation and the Funding System*, pt. iii.): but to support the charge, it would be necessary to examine all the circumstances which bore on each issue of a loan. The commercial principle on which it is based is seen daily at work in the stock exchange prices, which are usually below or above par. Further it is constantly adopted in inviting tenders for colonial or foreign loans where subscriptions are called for at a minimum of say £96 or £98 for every £100 stock: and of the colonial loans at any rate it may safely be stated that all future as well as present contingencies are considered before such minimum prices are fixed; considerations of the rate of interest are of course a potent factor.

The amount of cash received for an obligation has an important bearing on the morality of writing down the nominal capital of the loan in the case of a poor state. For a full statement of the debts and charge of debt of the British Empire and foreign countries, see article on DEBTS, PUBLIC.

[Adam Smith's *Wealth of Nations*, bk. v.—Hamilton's *National Debt.*—M'Culloch's *Taxation and the Funding System*, 1845, pt. iii. Excellent statements of the growth of the debt are found in *Fenn on the Funds*, and full information on many points in a *House of Commons Return* of 1869, 366, i., app. No. 13.—*Parl. Returns of the National Debt*, especially 443 of 1858, 366, i. of 1866, 312 of 1894.—Bastable, *Public Finance.*—Adam's *Public Debts.*—Giffen's *Essays in Finance*, 1st Series, Essay xi.] C. A. H.

NATIONAL DEBT, REDEMPTION OF. See REDEMPTION OF NATIONAL DEBT.

NATIONAL ECONOMY (and the German terms *Staatswirthschaft* and *Volkswirthschaft*, more or less equivalent to it) is used by many economists to designate that stage of development in which the economic life of an entire nation, or state, forms a united whole. It is distinguished from the preceding stages of a *territorial* or *provincial* economy (or, where a country did not go through that experience, of a *town* economy), and from the stage which may possibly follow in the future, of an *international* economy. Different writers lay stress on different characteristics; some, like Schmoller, upon the national regulation of industry and trade; others, like Bücher, upon the widening distance between producer and consumer, and the larger "circulation of wares." But these various features have been historically interdependent. The widening of the area of economic dealings between individuals has facilitated the substitution of national for local control; and the reverse is equally true.

"National economy" (*Nationalökonomie*) is also one of the several German designations of the science of political economy.

[G. Schmoller, *Studien über die wirthschaftliche Politik Friedrichs des Grossen*, in his *Jahrbuch*, N. F. viii. (1884), pp. 17 ff.; trans. under the title *The Mercantile System and its Historical Significance* (1896).—K. Bücher, *Entstehung der Volkswirthschaft* (1893), pp. 15 ff.—Ashley, *Econ Hist.*, pt. i. 206, pt. ii. 7, 9, 42, 43.] W. J. A.

NATIONALISATION OF LAND. See LAND, NATIONALISATION OF.

NATIONALIST (U.S.A.). The term applied to a social reform movement crystallising in the United States about 1888, favouring collectivism and management of industries by the government. It had its centre in Massachusetts, and was in a considerable measure the result of the publication of *Looking Backward* (1888) by Edward Bellamy. Societies were formed in various parts of the United States, some of which still exist.

A magazine was established entitled *The Nationalist*, of which three volumes were published; 1890, pp. 274; 1891, pp. 346; 1892, pp. 576. This movement is educational rather than political, resembling the attitude of the Fabian Society in England. Its views have also been represented in a weekly publication in Boston entitled *The New Nation*, edited by Mr. Edward Bellamy, which has now suspended publication. D. R. D.

NATIONALITY. "A portion of mankind may be said to constitute a nationality if they are united among themselves by common sympathies, which do not exist between them and any others—which make them co-operate with each other more willingly than with other people, desire to be under the same government, and desire that it should be government by themselves or a portion of themselves exclusively." With these words John Stuart MILL opens the chapter on nationality in his work on *Representative Government*. He goes on to analyse the influences which unite peoples among themselves and make them wish to form one body politic. Race, religion, language, local contiguity, and "identity of political antecedents" are all-important, though it is quite possible that one or more of them may be absent when the feeling of nationhood exists, or present when it does not exist (see NATION). When a nationality has been placed under one rule, and that the rule of some of its own members, it may conveniently be called a nation. The doctrine of nationality asserts that liberty, progress, and order are best secured when states and nationalities coincide. It maintains that all the individuals who compose a nationality should live under the same government, or in other words that nationalities ought to be nations. In one sense it is a revival of the old theory of political union through blood-relationship; but it includes the more modern notion of territorial sovereignty, since its advocates hold that the districts inhabited by men of the same race should, as far as possible, be placed under the same rule. It came into being as a protest against the doctrine of a balance of power, which divided provinces among states without regard to the wishes or political affinities of their inhabitants. It has modified immensely the state-system of modern Europe. Mazzini made it the gospel of the champions of Italian freedom. It helped to unite the German peoples into one powerful empire. The pan-Slavonic and pan-Hellenic movements owe their vitality to its inspiration, and each is a force which statesmen know they have to reckon with in the future. In its crudest form it assumes what is not true, and asks for what is not possible. Community of language does not prove community of blood. Race is not the only bond which brings men together in political union, still less is it so sacred that all arrangements made in derogation of its claims are internationally null and void. Outlying parts of a nationality are sometimes separated from the bulk of their fellows by realms inhabited by men of different blood. In some territories races are so mixed that it is difficult to say what nationality prevails. But as stated and guarded by J. S. Mill, the doctrine does but express the commonly accepted view that a people sufficiently distinct from other peoples to form a distinct nation should be ruled according to its own wishes.

[J. S. Mill, *Representative Government* (1878), ch. xvi.—Maine, *Early History of Institutions* (1874), Lect. iii.—Woodrow Wilson, *The State* (1889, Boston, U.S.A.).—Mazzini, *Life and Writings* (London, 1864).—Bluntschli, *Allgemeine Staatslehre* (Stuttgart, 1875), bk. ii. chs. iii. iv.]

T. J. L.

NATURAL AGENTS. See AGENTS of PRODUCTION.

NATURALIZATION. Down to 1844 (7 & 8 Vict. c. 66), the only way of passing from the condition of alien to that of natural-born subject was by act of parliament which, if private, naturalized certain people; if public, naturalized classes of people. In 1844 naturalization by certificate of the home secretary was introduced and has superseded the older method. The act of 1844 is replaced by that of 1870, 33 & 34 Vict. c. 14, under which any alien who has lived five years in the United Kingdom, or has served the crown for that period and wishes to continue doing so, may apply to the home office; he must prove the facts on which he relies by "statutory declaration," and must pay £5 : 5s. in fees, and must swear to be faithful to the British Sovereign. The Home Secretary may, at his discretion, refuse the certificate. From 1609 to 1825 an oath declaring the king supreme head of the church, and the taking of the sacrament according to the ritual of the established church was as a rule exacted, but in the American colonies and Ireland, Protestant dissenters need not observe the latter form; the first condition was abrogated by the acts of 1844 and 1870, and the second by the act of 1825. Colonies are authorized by acts of 1847 and 1870 to make their own naturalization laws.

(1) A peculiar interest attaches itself to the objects with which acts naturalizing classes of people were passed. A. Smith, after mentioning 5 Geo. I. c. 27, and 23 Geo. II. c. 13, under which the exportation of "living instruments of trade" —in other words the emigration of artificers—was forbidden, writes: "I do not observe at least in our statute book any encouragement given to the importation of the instruments of trade" (bk. iv. ch. viii. ed. 1890, pp. 502, 516). We can here supply A. Smith's omission. The English act of 1663 (15 Car. II. c. 15), after reciting that "vast quantities of linen, cloth, and other manufactures of hemp and flax, and of tapistry hangings are daily imported into this kingdom from foreign parts to the great detriment and impoverishment thereof, the monies and quick stock of this kingdom being thereby daily greatly exhausted and diminished," naturalized Protestant manufacturers of these articles if they would reside in England three years. Even the Irish plantation acts expressed the same economic object when they offered citizenship to any one who would condemn papal doctrine and acknowledge the royal supremacy; thus the Irish act of 1662 (14 & 15 Car. II. c. 13), begins: "Whereas much coin and ready money is carried out and transported for buying and purchasing of foreign manufactures, to the great exhausting and diminishing the treasure of this kingdom." Similarly the acts of 1732 (5 Geo. II. c. 28), etc., which naturalized foreign Protestants who served in the Greenland fisheries, etc., were passed in order that England might import commodities such as blubber without exporting money. The Fishery and Irish Acts were animated far more by political than by economic motives, but the MERCANTILE SYSTEM and the theory of the BALANCE OF TRADE are one root of those acts, and the taproot of the act of 1663. These acts were repealed by the Statute Law Revision Act 1863 and by the act of 1870, but had died a natural death at least half a century before. Other naturalizing acts were passed from time to time to carry out the pre-Malthusian idea that numbers meant wealth as well as strength (7 Anne, cap. 5, xiii.; George II. cap. 7 (preambles), and see *Reflections upon Naturalization, etc., by a Country Gentleman*, 1753. (2) Secondly as to the effects of naturalization, Francis Bacon wrote: "There be but two conditions native and alien—nam tertium penitus ignoratur." The first hint of an intermediate class is in the act of 1663, which taxed aliens naturalized under that act still as aliens, when they traded with foreign parts. The first political barrier between naturalized alien and natural born was raised by an Irish act of 1703, amending that of 1662, which deprived aliens naturalized under the principal act of the vote and of power to be magistrates, officers of a city, or members of parliament. In England, under the Act of Settlement and other acts, naturalized aliens (*a*) could not after 1714 be members of parliament nor of the privy council; (*b*) nor fill any office of trust; (*c*) nor receive grants of crown lands. The first disability (*a*) continued until 1870; (*b*) and (*c*) until 1844. A naturalized alien may still find himself at disadvantage if he visits his old country or a colony.

[Pollock and Maitland, *History of English Law* (1595), bk. ii. ch. ii. § 6 (mediæval).—G. Hansard, *Treatise on the Laws relating to Aliens* (1844) (modern English).—Henry Wheaton, *Elements of International Law*, ed. A. C. Boyd, 3rd edition (1889), § 82a (see ALIENS; DENIZEN).] J. D. R.

NATURALIZATION IN THE UNITED STATES. The constitution of the United States (art. 1, § 8) gives congress power to "establish an uniform Rule of Naturalization." The law of 26th March 1790 permitted naturalization after two years' residence, upon application to any common-law court of record and the taking of an oath of allegiance. In 1795 the law was revised so as to provide for a preliminary declaration of intention to become a citizen, to be made three years before admission to citizenship, and requiring a total residence of five years. Owing to the hostile feeling against the French, which became so violent toward the close of Washington's administration and during that of John Adams, an exceedingly stringent law was passed in 1798, providing that the declaration of intention to become a citizen must be made five years before admission to citizenship, and that the applicant must prove a residence of fourteen years in the United States, five in some one special state, before admission. This law was an outcome of the same feeling that led to the passage of the alien and sedition laws, which from their unwise severity were the chief influence in bringing about the downfall of the Federal party. Less than four years later, in 1802, the law was amended providing that the declaration of intention must be made three years before admission, and that the total period of residence should be five years. The law required, in addition to the usual oath of allegiance, also an abjuration of allegiance to any foreign ruler.

Though there have been since that time some slight changes, the law remains substantially the same, with the exception that the declaration need be made only two years before final admission as a citizen. Several provisions have been made regarding special classes of citizens. For example, during the time of the civil war it was provided, in 1862, that any honourably discharged alien soldier might be admitted to citizenship without previous declaration, upon proving one year's residence. Children of persons naturalized become citizens if under twenty-one years old at the time of parents' naturalization. Any alien under twenty-one who has resided in the United States three years before arriving at that age, may be admitted after five years' total residence without previous declaration of intention.

The right of naturalization in the United States carries with it all the rights of native citizens, with the exceptions that the President and Vice-president of the United States must be native born; and that the naturalized

citizen cannot serve as a United States senator until he has been a citizen of the United States nine years, or as a member of the House of Representatives until he has been a citizen seven years. The power to vote for the President and members of Congress in the United States depends upon the right given by the individual states to vote for members of the lower house of their legislatures, and no fewer than sixteen states grant this right to vote before the alien becomes naturalized. In one case, Indiana, if the alien has declared his intention of becoming a citizen and has resided one year in the United States and only six months within the state, he may vote. Minnesota requires only one year's residence and declaration of intention. In all these sixteen states an alien must have declared his intention of becoming a citizen; the period of residence varies from six months to four years. Twenty-eight states require that a man become a full citizen before he is permitted to vote. There can be no doubt, however, that even in some of the states where naturalization is insisted upon as a pre-requisite to voting, many frauds have been committed by political leaders for the sake of securing the too early naturalization of aliens in order that their votes may be obtained.

Many questions arose some years ago between the United States and several of the European states regarding the protection that should be extended by the United States to naturalized citizens abroad, especially in the state from which the naturalized citizen had emigrated. Several of the European countries, particularly Germany and Austria, insisted upon holding for military duty those persons who, before serving their regular period in the army, had emigrated to the United States. The United States, on the other hand, if the emigrants had become naturalized citizens, insisted upon protecting them against the government of their native country. In 1868 congress passed an act providing that "all naturalized citizens while in foreign states shall be entitled to and shall receive from this government the same protection in person and property as is accorded to native-born citizens in like situation and circumstances," a practical repudiation of foreign claims. Within the next three years treaties were negotiated with the leading countries concerned—England, Austria, Baden, Bavaria, Belgium, and others, which removed all such causes of controversy. States that before had not recognised the right of expatriation, under these treaties recognised it, with the proviso in ordinary circumstances that, if the person concerned had left unperformed, at the time of his emigration, any obligation then due to his native state, he might be held to the performance of that obligation, but of no other; or if he had committed any crime against that country he should be held for punishment. In one instance, the evasion of military duty was specifically mentioned. In certain cases, notably in that of Martin Koszta, the United States has extended a certain amount of protection in foreign lands to aliens who, not yet fully naturalized, had when resident there formally declared their intention of becoming citizens of the United States; but obviously this protection could not be carried far against the person's native state.

The necessity imposed upon the United States of protecting its naturalized citizens has been greatly increased by the great immigration into that country; and its readiness in granting such protection has doubtless had much influence in liberalising the views of other countries regarding the right of expatriation. J. W. J.

NAVARRETE, PEDRO FERNANDEZ (end of 16th and early 17th century), was chaplain to the royal family of Spain, and an officer (*consultor*) of the Inquisition. The miserable state of Spain had led the supreme council of Castile to submit to King Philip III. a Great Report (*Gran Consulta*) on the remedies to be applied; this report was delivered on February 1619, and gave rise to fifty *Discursos* or glosses from Navarrete, printed in 1626 at the royal press, and several times reprinted since under the title of *Conservacion de Monarquías*. They are included in Rivadeneyra's *Bibliot. de Aut. Españoles* (vol. xxv., Madrid, 1853).

Though a long-winded writer and rather too fond of learned quotations, Navarrete shows himself in many respects free from contemporary national and religious prejudice. Speaking of the expelled Moors, he says, "I am certain that if before driving them to desperation, it had been sought to admit them to some honourable offices without any note of infamy, it is possible that they might have been willing to be received in the Holy Church through the gate of honour" (*Discurso* VII.). In the same discourse, he wonders whether all the Irish refugees were bred to be noblemen as they show such reluctance to labour. He ascribes the depopulation of Spain to the numerous continental wars, and the passion for adventures excited by the discovery of America (*Disc.* VIII.) as well as by the ingrained indolence of crowds of vagrants "who are seen playing at cards the whole day in the streets of Madrid, awaiting by day the hour to be fed at the gates of convents, and by night to commit burglaries" (*Disc.* IX.). For a remedy he recommends the development of manufactures as in France, Italy, and the Netherlands, "which are rich countries, *though they rear neither gold nor silver*," and, "because human labour adds additional value to the primary value of natural produce" (*Disc.* XVI.). It would be useful to admit foreign artisans, provided they were not allowed to carry away all

their acquired wealth (*Disc.* XVII.). There are too many *mayorazgos* (entailed estates) (*Disc.* XI.), too many noblemen (*Disc.* XXI.), too many holidays; in some bishoprics, they cover one-third of the year, without including bull-fights and public rejoicings (*Disc.* XIII.). He sees no possibility of levying new taxes (*Disc.* XIX.), and considers that as regards sumptuary regulations "example (of the magnates) is better than imperative laws" (*Disc.* XXVIII.). In his fiftieth and last discourse, he concludes with a truth not much appreciated in the Spain of his days, namely that "the councillors of kings ought not to be like cooks, who only think of dishes to please the palate, but like physicians, who prescribe bitter and stringent pills and potions." E. Ca.

NAVARRUS DE AZPILCUETA, MARTINUS (d. 1586), one of the most distinguished Roman Catholic theologians and canonists of the 16th century, was a Spaniard by birth, and, after a long career as professor at Tolosa, Salamanca, and Coimbra, resided in Rome for six-and-twenty years until his death. To the economist he is of interest on account of his extremely liberal teaching in the matter of usury (see CANON LAW; INTEREST AND USURY). He not only justified the triple contract (see ECK, JOHANN, who also explained the principle on which, through the *Contractus Trinus*, the payment of a certain percentage for the use of money was held to be lawful), but was the first considerable theologian on the Roman Catholic side, as MELANCHTHON (*q.v.*) was the first on the Protestant side, to maintain that MORA or delay needed not to be proved to justify the payment of compensation for "interest."

[For an account of him and of his *Manuale Confessariorum*, see W. Endemann, *Studien in der romanisch - kanonistischen Wirthschafts - und Rechtslehre* (1874), i. 47, *et frequenter*, and, in English, Ashley, *Econ. Hist.*, i. pt. ii. 453.]

W. J. A.

NAVEAU, JEAN BAPTISTE (1716-1762), was a French official.

He wrote the *Financier Citoyen*, Paris, 2 vols. 1757. Although criticised by Voltaire in *l'Homme aux Quarante Ecus*, Naveau's book is still useful to consult on account of its copious information (Stourm, *Dict. Hist. des Finances*, 1895, p. 97).

E. Ca.

NAVIGATION ACTS. See NAVIGATION LAWS.

NAVIGATION CLAUSE. This is the clause found in many commercial treaties, whereby the privileges granted to the merchandise of the contracting powers are limited to goods carried by the ships of the powers or other privileged ships, or by certain fixed routes. This must be distinguished from the grant of reciprocal treatment to the ships of each power in the ports of the other. C. A. H.

NAVIGATION LAWS

I. History, p. 8; Chief provisions, p. 9. II. Policy, p. 10: (*a*) Naval Aspect, p. 10; (*b*) Commercial Aspect, p. 11.

Navigation Laws was the short title of a series of enactments designed to restrict the carrying trade of Great Britain to ships and sailors of native birth.

I. History

So far as we can ascertain, the idea of so restricting trade did not occur to the ancients, and Macpherson is correct in stating that the first instance of a navigation act was that of James, king of Aragon and count of Barcelona in 1227. This act prohibited all foreign vessels from loading goods at Barcelona for Alexandria and other parts unless no vessels belonging to Barcelona were ready and competent to perform the voyage. The object was to crush the trade of the Catalans to the Levant.

The first navigation act of the English parliament was 5 Ric. II. c. 3 (1381). In order to make better provision for an efficient navy, it enacted that no subject of the king should ship any merchandise outward or homeward, except in "ships of the king's allegiance," under penalty of forfeiture of the vessel and cargo. Within a year it was found necessary to modify this stringent enactment by the proviso, evidently borrowed from the Spanish act above mentioned, that it should be lawful to ship in foreign vessels if English could not be found.

A Scottish act followed this; it is not on record, but it was temporarily suspended for a year by an act of 1428, which allows Scottish merchants for that one year to ship in foreign vessels where Scottish are not available. At this period Scotland usually followed England closely in such a policy.

The policy which dictated these acts was a product of an age which assumed that everything could be effected by a king's decree, and viewed any progress on the part of another nation as a danger to England (cp. COMMERCE; EXPORTS, DUTIES ON). But occasional references show that the act was not entirely successful, and the attempts made from time to time to strengthen it point in the same direction. In 1485, a law was enacted for one year, that no one should buy or sell French wines unless imported in vessels belonging to England, Ireland, or Wales, and navigated principally by natives of England, Wales, Ireland, or Calais (this last is an interesting "footnote to history"). And in 1489, avowedly on account of the decadence of the English marine, a new act was passed to prohibit the charter of foreign vessels, except where there was no room for freight on English vessels. This last act seems to have fallen into disuse and was re-enacted in 1541.

A notable reversal of the policy took place in the first year of Elizabeth's reign (1558).

'Since the making of the statutes," the preamble ran, "other sovereign princes, finding themselves aggrieved by the said acts, as thinking that the same were made to the hurt and prejudice of their country and navy, have made like penal laws . . . by reason whereof there hath not only grown great displeasure between the foreign princes and the kings of this realm, but also the merchants have been sore aggrieved and endamaged"; the growth of illicit traffic was also cited, and the law abolished prohibitions and made the ports of England open to foreign shipping on payment of a higher duty on goods so imported. Various breaches in this policy, even during Elizabeth's reign, were made from time to time to suit certain ideas, such as discouraging the export of corn, or to please special interests such as the TURKEY COMPANY (*q.v.*).

In 1646, the old idea re-asserted itself; the Long Parliament enacted that no duty should be levied on goods intended for the plantations, provided they were shipped in English bottoms. In this act, Macpherson finds the foundation of the navigation acts, which he hails as the "commercial palladium of Great Britain" (vol. ii. p. 431). Five years later, parliament determined that no merchandise, either of Asia, Africa, or America, including our own plantations, should be imported into England in any but English-built ships, belonging to English subjects, navigated by English commanders with three-fourths of the crew English. This is the first Navigation Act usually so styled. It was aimed against the Dutch, who were then on a free-trade basis, not only doing the carrying trade of Europe, but attracting English sailors into their service.

Chief Provisions of Acts.

As, however, this law was an enactment of the Commonwealth, it is the act of 1660 (11 Car. II. c. 18) which is usually called the Navigation Act, the *Charta Maritima* of Great Britain according to Sir Josiah Child. Its chief provisions were:

(1) The prohibition of importation or exportation into or from the plantations, except in national ships with English commanders and with at least three-fourths of the crew Englishmen.

(2) The prohibition of foreigners from becoming merchants or factors in the plantations.

(3) The prohibition of the importation of goods, the growth or produce of the plantations into England "but in such ships as doe truly belong to English people" and navigated as above.

(4) Restriction of the coasting trade to English owners only.

(5) The chief products of the English colonies to be shipped only to England, Ireland, or other plantations.

There were other restrictions and conditions which do not need mention here. The Scottish parliament followed suit in 1661, but wisely, amongst other exemptions, made the act inapplicable to the case of corn in time of dearth. In 1663 (14 Car. II. c. 11) an important extension of the act became law, excluding from the privileges of English ships all foreign-built ships, even if owned in England and manned as required by the act of 1660. This act also encouraged armament in Mediterranean vessels, chiefly because of the Barbary pirates.

For nearly two centuries the principle of these acts dominated the policy of England towards its shipping interests; it was interwoven in all acts whose chief object was the general restriction of trade to English channels, as in that of 1663, which required all commodities shipped from the plantations to pass through England to their destination. In 1675 it was found necessary to issue a proclamation to enforce the acts; in 1696, an attempt to re-enact them was made. All this shows that there was a good deal of evasion. On the other hand a sense of the weakness of the policy was shown in the partial relaxation of the acts in 1665 and 1693, in order to help English merchants to recover some share in the Greenland whale fishery. But public opinion was, on the whole, strongly in favour of the acts; hardly a voice except Richardson's (in 1750) was raised against their policy during the whole of the 18th century. The first organised attack upon them came from the colonies, and particularly the West Indian colonies, after the severance of the United States.

When the American colonies declared their independence, it seems to have been foreseen that their large trade with Great Britain, which had been fostered by artificial restrictions, would at once be lost if it were put on the footing of other foreign trade; accordingly American ships were, for the purposes of the direct trade, put on the footing of British ships. This amounted to a suspension of the navigation acts as regards this trade; and though at the time it attracted little attention, it was afterwards severely criticised as such. The order in council of 2nd July 1783, which conceded this favour, confined trade with the West Indian colonies to British ships, endeavouring to force it out of its natural channel, viz. with the republic of the United States to Canada and Nova Scotia. The West Indian colonies were not long in appealing against a restriction which, amongst other evils, made their supplies dearer and more precarious. On the 19th Nov. 1783, the legislature of Jamaica protested, and Barbados

and Antigua followed suit. The matter was referred to the Trade and Plantations' Committee in 1784, and again in 1791. They gathered information and evidence, and issued rather indeterminate reports, the gist of which was, in fact, that more harm was being done to America than to Great Britain. The matter dragged on from year to year, partly postponed by the frequent state of war, during which the navigation acts were continually suspended, as in 1803 and 1806. Very strenuous attacks were made by the shipowners upon these suspending acts, but no serious inroad was made on the principle of the navigation acts till Mr. HUSKISSON took the question up in 1821. He argued it very clearly and successfully. By an act of 1822 (3 Geo. IV. c. 44), the colonies were for the first time allowed to export their produce to any port, provided it were carried by British ships, and even in ships of the port for which it was destined, if that port was in one of the United States. By the same act a still more important step in advance was made; the old prohibition against the shipping of goods from the ports of certain European countries—notably the Netherlands and Germany—was at last abolished. In 1825 Mr. Huskisson carried a further reform, closely connected with his policy of reciprocal trade arrangements with other European countries; it was made legal to import the produce of any country in a ship of that country as well as in a British ship; the privilege which had been granted first to the United States, and then to Portugal, was made general, though with some sort of stipulation for reciprocal treatment.

The act of 1825 (6 Geo. IV. c. 109) practically brought the navigation act to that final form in which it was the subject of so much debate after the free-trade movement was established. The act was consolidated and re-enacted in 1833, and again in 1845 (8 & 9 Vict. c. 88). The latter was the last navigation act: it restricted the importation of certain enumerated articles to British ships or ships of the country in which these articles were produced; it prohibited the importation of the produce of Asia, Africa, and America, from any European port in any ship; it confined the trade between all parts of the British empire to British ships; and it required that a British ship should be navigated by a British master and a crew three-fourths of whom were British. The act should be read with those relating to the registration of ships and of seamen.

But every year the restraint became more irksome. The colonies and foreign countries were alike protesting, and volumes of Bluebooks were filled with memorials. In 1847 the House of Commons appointed a select committee to consider the subject: five times they simply reported the evidence which they had taken; the conflict of testimony was so great that they seemed unable to proceed to a report. In 1848 the House of Lords did exactly the same. But in 1849 the movement in favour of repeal could no longer be withstood: by the act 12 & 13 Vict. c. 9, the old navigation acts and their policy were swept off the statute book as from the 1st of January 1850.

II. POLICY.

The beneficial results claimed for the navigation acts by their defenders were two, viz.:

a. That they secured England's naval supremacy by forcing her people to become sailors.

b. That they laid the foundation of England's commercial greatness.

Even ADAM SMITH, pointing out that they probably had their origin in national animosities, wrote of them—"They are as wise as if they had been dictated by the most deliberate wisdom."

(*a*) *Naval Aspect.*

In making that statement Adam Smith was evidently thinking chiefly of the naval aspect of the question. The opinion that these acts had been the origin of England's naval strength, prevailed to modern times, and was much in evidence before the parliamentary committees of 1848 and 1849. Even at the present day, many would be found to support it. But the better opinion would seem to be that which contests this view. Mr. Labouchere, speaking in the House of Commons in 1848, referred to the above-cited statement of Adam Smith's, as "one of the few errors which Adam Smith ever made." We might expect such authorities as MACGREGOR and PORTER in evidence before H. of C. committee, to be against the contention—but many would pay greater attention to Captain Sir John Stirling's view that the navy had derived no benefits from the acts. It is difficult to produce actual evidence for or against the view in question. A few general considerations certainly shake confidence in it. To go no further back, in Elizabeth's reign, when there was little restraint on shipping, the navy of England proved itself vigorous and efficient, both in the Channel and off the Spanish main. The Dutch, despite the acts, were powerful at sea long after 1650. Soon after the enactment of the Navigation Act, the navy was at the lowest ebb in its history, and Coke, writing in 1671, thinks the act had actually weakened it. And allowing that there is another side to the argument, we may nevertheless cite the facts (1) that in 1740, and again in 1803, one of the most vital provisions of the act, as to the proportion of British seamen, was suspended during war time; and (2) that foreign seamen

were for years employed surreptitiously in the coasting trade of Great Britain in spite of the law to the contrary.

Since the repeal of the acts, there has been no apparent decrease in England's naval strength. Further, the best school for the navy is in the mercantile marine, and that which cramps the development of the latter must injuriously affect the navy. So that Adam Smith himself, when, passing from the passage already quoted, he states that the navigation acts were bad for commerce, appears to furnish a refutation of his own previous statement.

(b) Commercial Aspect.

This second passage from Adam Smith is as follows: "The navigation act is not favourable to foreign commerce, or to the growth of that opulence which can arise from it." If we could accept as representative the opinion of an ardent supporter of the act, the advocates of the act had no care that it should be favourable to commerce. "Trade," he writes, "was considered principally as the means for promoting the employment of ships, and was encouraged chiefly as it conduced to the one great national object, the naval strength of the country" (*v. Collection of Papers*, 1807, noted at end of article). Not that the loud complaints of the shipping interest, towards the end of last century and onwards, show so much anxiety for the naval strength of the country as for their own private advancement. They would not, in fact, have agreed with Adam Smith. They alleged that the suspension of the acts was followed by decrease in shipping, and that they were at once handicapped in their competition with foreign shipowners. Some attempt was made to prove this by figures, but we have found it impossible to handle those figures as a simple indication of the separate effect of the navigation laws or their suspension. We can here only give some general statements.

Macpherson triumphantly quotes the Dutch remonstrance against the acts at Breda (1667), as an evidence of their value in wresting the trade from the Dutch; but we find nothing to show upon what lines the remonstrance proceeded, and it is at least as likely that it was directed against the general unfriendliness of the policy and the stringent powers of search given to British officers. It was to the gradual decline of the carrying trade of the Dutch that most of the advocates of the acts have pointed as evidence of their success; but they fail to consider the other reasons which led to the transfer of the sovereignty of the ocean. Thorold Rogers (*Econ. Inter. of History*), free trader as he was, states that the navigation acts of Cromwell transferred the supremacy of the seas from Holland to England.

On the other hand, Macpherson admits that there were very soon loud complaints of the acts from British subjects. Roger COKE (*q.v.*) (1671) states that within two years the act had lost England the Baltic and Greenland trade; and two or three times it was specially waived with a view to the recovery of that trade. Sir Josiah CHILD, the great advocate of the acts, gives much evidence of their impotence and interference with trade. Richardson (1750) found great fault with the working of the acts. A glaring instance of their unfairness is that quoted by the assembly of Jamaica, that in 1783, when there was great distress in the island, there were about 5000 barrels of flour in the harbour which could not be landed because of the provisions of the navigation act. Labouchere cites as a gross instance of their bad effect, a despatch from the government of Trinidad to Earl Grey. "When coolie labour was first proposed to be introduced, American vessels could have been procured to bring them at £9 per head whereas the present charge is nearly £18." More general instances may be found in the evidence before the select committees of 1847 and 1848. And the short allusion to them in the first report of the Commissioners of Customs is a severe condemnation.

That their relaxation did not injure British shipping may be shown from Mr. Huskisson's figures comparing British and foreign ships entering English ports.

	British tonnage.	Foreign tonnage.
Average of 1814-1823	1,607,948	539,062
,, ,, 1824-1826	1,963,678	804,366
Actual number in 1826	1,950,630	694,116

The increase of British tonnage was greater in proportion than that of foreign tonnage. The year 1826 was one of depression.

That the abolition of the acts did not injure British shipping, is shown by the following returns.

	British ships trading to and from English ports.		Foreign ships trading to and from English ports.	
	No.	Tonnage.	No.	Tonnage.
1845	.....	8,546,090	.....	3,531,215
1850	44,698	9,442,544	32,045	5,062,520
1855	45,852	10,919,732	37,695	7,569,738
1860	52,643	13,914,923	50,503	10,774,369
1865	63,170	19,358,955	48,897	9,538,137
1870	70,587	25,072,180	49,116	11,568,002

The proportion of British tonnage in 1845 was 71 per cent; in 1865 it was about 67 per cent; in 1870 barely 70 per cent. Coming to 1880 there were 41,348,984 tons of British

against 17,387,079 foreign, or rather over 70 per cent, and at the present day the proportion remains much the same. As against these figures the only argument to be used is that the numerical increase of British tonnage would have been greater had the acts been maintained. This is contrary to the balance of evidence.

[Macpherson, *Annals of Commerce*, vols. i. ii. *passim*, see index, *sub voce*.—*A collection of Papers on Navigation and Trade* (including reports of Committee of Trade and Plantations) printed by order of the Society of Shipowners, 1807.— Huskisson's *Speeches*, 1825-1827.— John Lewis Ricardo's *Anatomy of the Navigation Laws*, 1847.—Cp. *Ricardo's Anatomy dissected*. By a Barrister (1848).—*Reports of Committee of House of Commons on the Navigation Laws*, 1847.—*Reports of Committee of House of Lords*, 1848.—Mr. Labouchere's *Speech in the House of Commons*, 1848.—Debates of 1849, *e.g.* Harrowby and Brougham, 7th May, for the Acts; also Earl Grey.—Pamphlets of W. S. Lindsay and T. Ogilvy.—Allen's *Navigation Laws of Great Britain*, 1849.—M'Culloch's note to Adam Smith's *Wealth of Nations*, 1863 (cp. M'Culloch's *Commercial Dictionary*).] C. A. H.

NAVILLE, FRANÇOIS MARC LOUIS (1784-1846), was born at Geneva and died at Vernier near that city. He was a Protestant pastor of French extraction; persecution having driven his family from their native land. Like many pastors he occupied himself with education.

In 1829 the French Academy offered a prize on the subject of Charity—two competitors were bracketed equal for it—DUCHATEL and Naville.

Naville's paper, revised and enlarged, was printed under the title *De la charité légale, de ses effets, de ses causes et spécialement des maisons de travail et de la proscription de la mendicité* in 1836, 2 vols. 8vo. The success of this work is due to its methodical arrangement and the clearness of its conclusions. It argues against charity dispensed by the state, in favour of private bounty.

The sincerity of the author is shown in his declaration that when commencing to write he was quite of the opposite opinion, and regarded charity as one of the normal and necessary functions of the state. In working on his subject he felt the instability of the basis of his opinions, and argued against state interference. Within the limits of the subject the work is a masterpiece. A. C. F.

NEALE, EDWARD VANSITTART (1810-1892), Vansittart Neale's active connection with co-operation did not begin till he was forty years of age, though he was ripe for the work by a previous searching study of systems of socialism.

About 1850 he heard of and joined the well-known band of Christian Socialists (see CHRISTIAN SOCIALISM), and became a member of the "Society for Promoting Working Men's Associations" of which the Rev. F. D. MAURICE was then president.

His work for the co-operative cause during forty years was rather of a practical than of a literary character. Yet his literary work was considerable, and included a *Manual for Co-operators* and many magazine articles on social economics, the last, *Thoughts on Social Problems and their Solution*, appearing in the *Economic Review*, October 1892, after his death. He was also a constant contributor to the *Co-operative News*, and numerous pamphlets issued by the Co-operative Union were written by him. His practical work may be classified as follows:

1. *Promotion of Co-operative Societies.* He started the first co-operative stores in London, and the "Central Co-operative Agency," which anticipated, if it did not actually bring about, the present Co-operative Wholesale Society. He took an active part in the formation and management of many societies, distributive and productive, and helped them largely with funds. Amongst other attempts he, with his own capital, tried a large experiment in co-operative production at the Atlas Engineering Works. Though he thus lost a considerable fortune, the sacrifices made by Neale in the cause did perhaps more than anything to keep out class jealousy and distrust from the co-operative movement.

2. *Legal Work*, and especially the promotion of legislation to protect industrial societies. It was chiefly through the efforts of Neale and J. M. Ludlow that the first Industrial and Provident Societies Act was passed in 1852, which gave a legal status to co-operative societies—regarded hopefully by some as the "Magna Charta" of the labouring classes. He shared in the drafting of many amending acts, and was solely responsible for the great consolidating act of 1876. He also gave valuable assistance in framing rules for co-operative societies, notably those of the Co-operative Wholesale Society and the Co-operative Union, and he prepared the model rules under which most societies are now governed.

3. *Work in connection with the Co-operative Union.* With the rapid growth of the Co-operative Wholesale Society's business, it was felt that something other than a successful business concern was required as the "official and recognised representative organ of co-operation in England."

Congresses presided over by Vansittart Neale were accordingly held in London in 1868. They were the forerunners of the co-operative congresses, which are now of annual occurrence, and led to the formation of the Co-operative Union. In all this Neale took a very prominent part, and in 1874 he became secretary of the Union, living in lodgings in Manchester and devoting himself absolutely to the work. He retained this post until within a few months of his death, notwithstanding his advanced age, and his succession to a landed estate, which

would have drawn away most men from such arduous work.

In this position he was at the centre of the co-operative movement in England; he also attended congresses and corresponded with co-operators abroad. He helped to found, in 1884, the Labour Association for advancement of co-operative production and labour partnerships —which still exists.

It is perhaps needless to add that in the great question that threatens a division among co-operators, Neale held that the workpeople employed by co-operative distributive societies, wholesale or retail, were entitled to a share in the profits, and a voice in the direction, instead of being treated like the employés in any ordinary factory or workshop.

E. V. Neale wrote several religious works; among those on co-operative questions are:—*Association and Education: What they may do for the People.—Land, Labour, and Machinery.—The Economic Aspect of Co-operation.—The Three C.'s Co-operative Triologue.—May I do what I will with mine own?* 1851.—*The Economics of Co-operation.*

[Henry Pitman, Life, Co-operative Union, Manchester, 1894.—Notice by J. M. Ludlow, *Economic Journal*, vol. ii. 1892; and notices by Judge Hughes, *Economic Review*, 1893 (see also CHRISTIAN SOCIALISM; CO-OPERATION).]

H. HO.

NEBENIUS, KARL FRIEDRICH (1784-1857), was born near Landau in the Rhenish Palatinate. After studying law at Tübingen, he made himself acquainted with the Napoleonic methods of administration as a volunteer assistant to the prefect at Besançon, but would not accept a place in the French service. He became in 1807 private secretary in the Baden ministry of finance, in 1823 first councillor, and in 1838 president of the ministry of the interior. He supported a liberal policy, but the absolutist party under Blittersdorf gained the ascendancy, and he resigned office in 1839. He declined an offer from Frederick William IV. of a high position in the Prussian service. On the fall of Blittersdorf he became again in 1845 minister president. He retired in July 1849; suffered for some years from failing sight, and died at Karlsruhe.

Nebenius was the leader of reform in Baden for nearly forty years, constructing the new constitution of the state in 1818, creating its railways, remodelling its taxation and domain-management, introducing the metrical system of weights and measures, organising the system of popular instruction, and regenerating the higher teaching, especially in the university of Heidelberg, of which he was curator. But his name is chiefly associated with his energetic and successful efforts for the establishment of the ZOLLVEREIN—an event which Roscher pronounced to have been the most important in German history between Waterloo and Königgratz. List had done much, as a popular writer and indefatigable agitator, to recommend to the national mind the idea of such an institution; but Nebenius studied its conditions, conciliated its opponents, and devised a tariff for the general adoption of its component states, so that he has been justly called its intellectual founder. The perseverance, foresight, and tact with which he worked out the problem, merit hearty approbation.

As a scientific economist he was of the school of Adam Smith, and was an advocate of free trade as the general rule in practice; but he rejected the doctrine of the absolute non-intervention of the state in the industrial world. His principal theoretical work was *Der öffentliche Kredit*, 1820, 2nd ed., 1829, "perhaps," says Roscher, "the best monograph in the whole economic literature of Germany, and certainly the most important treatise on the subject of public debts which has been written in any language." His most noteworthy writings bearing on the question of the Zollverein were his *Denkschrift über das Deutsche Zollwesen*, written and privately circulated in 1819, but not published till 1833, and *Der Deutsche Zollverein, sein System und seine Zukunft*, 1835.

[Von Weech in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N.O.*, p. 953.] J. K. I.

NECESSARII HEREDES. Members of the household of a deceased person, upon whom his inheritance fell, succeeded to him as universal successors or heirs without any consent of their own, and whether they wished to succeed or not. Hence they are called in Roman law necessary heirs—*necessarii heredes*, being opposed to heirs, who are not members of the household of the deceased, as these do not acquire his inheritance without an act of acceptance on their part, *hereditatis aditio*.

There are two classes of *necessarii heredes:* 1. *sui et necessarii*, descendants of the deceased under his paternal power, who become by his death independent persons, *sui juris;* 2. *necessarii heredes, i.e.* slaves of the deceased made heirs by him in his will. E. A. W.

NECKER, JACQUES (1732-1804), was born and died at Geneva. His character was an unusual mixture of qualities rarely united in one individual. A very able and honest banker, he established a house of the highest standing at Paris—Thélusson, Necker & Co.,—and rapidly accumulated a large fortune; satisfied with the wealth he had acquired, he retired from business at the age of forty to devote himself to politics and literature. He believed himself possessed of sufficient capacity to lead the political world, and that at a moment when it was in the utmost disorder. Dexterous in the use of expedients, and but slightly burdened with theory, he flattered himself that he would eclipse Turgot, whose inferior he was, especially in grasp of principle. His first work, the *Éloge de Colbert*, received a prize from the French Academy in 1773, he then wrote *De la législation et du commerce des grains*, 8vo, 1775, which, dogmatic in style and opposed to the views of

Turgot, had considerable success, and even contributed to the fall of that minister (19th May 1776). On Turgot's successor, de Clugny, dying, 30th October 1776, Taboureau des Reaux was appointed to succeed him, and compelled to accept Necker as his coadjutor. This led to his resignation 1st July 1777, when his duties were handed over to Necker under the title of *Directeur-général des finances*. Though acting as *Contrôleur-général*, he was not granted that title, as this would have admitted him to the council of state, and he was a protestant. In this, his first essay in finance, Necker showed marked ability, diminishing the expenses, simplifying the machinery of the administration, and, through his connection with the great Bank, obtaining exceptionally favourable terms for the treasury. The tide of public opinion began now to set in the direction of the convocation of the *États Généraux*. In 1781 Necker's famous *Compte Rendu au Roi* appeared, addressed rather to the public than to the head of the state. His popularity increased; the success of his report, the first of its class, though incomplete, was great. The condition of the finances of the country was improved, but an unexpected result occurred. Cabals were roused against him, perhaps fomented by Necker's extraordinary vanity and his folly in mixing praises of his wife, whose *salon* was celebrated, with his official reports. The court became hostile, and in 1781 he was compelled to resign. But the weaknesses of the best-known of his successors, Calonne, caused the public to think with regret of the fallen minister, and the publication of *De l'administration des finances de la France*, 3 vols. 8vo, 1784, contributed to strengthen his popularity. This work, like those which Necker had written previously, is marked by an absence of general principle; it was declamatory and exaggerated in style, but valuable to those who would study how the finances of France were managed in the last days of the old régime.

Necker was detested by the court as a protestant and a bourgeois, nevertheless Louis XVI. found himself compelled to recall him to power, 20th August 1788, this time also with the title of *Directeur-général des finances*. The financial position was serious. The payment of the interest of the public debt was suspended, the treasury empty; Necker's return to power inspired confidence, and, as if by magic, money reappeared. He had, however, to employ his private resources to sustain the public credit. Though the court was still hostile, the multitude applauded him. When he spoke of retirement the court was compelled to ask him to remain in office, but by one of those sudden turns of fortune so frequent at this period, the king intimated to him his dismissal, 11th July 1789, and ordered him to leave France secretly. Necker obeyed and returned to Geneva. The effect of his departure on public opinion was terrific. In the midst of these disturbances the Bastille was taken, and on 29th July, Necker was recalled by the court with the title of *Premier ministre des finances*, and was admitted to the council. His return was an unparalleled triumph. In every town that he passed through between Switzerland and Paris the horses were taken out of his carriage and he was drawn by the admiring people. This mad enthusiasm could not last. Some slight errors in judgment alienated public opinion, and on 8th September 1790 he was again compelled to leave office and France, this time for ever. The populace was indifferent, if not hostile. In a small town in Champagne, he, who had never deigned to accept the salary attached to his high office, was arrested as a malefactor. How little he had deserved this may be understood from the fact that he had left behind him at the treasury, to assist the public credit, £96,000, his own property, which was only returned to his daughter the well-known Madame de Staël-Holstein in the early years of the Restoration. An order had to be obtained from the national assembly to enable Necker to regain his liberty and to return to Switzerland.

Of Necker's later works we need only mention: *Sur l'administration de M. Necker par lui-même*, in 1 vol. 8vo, 1791.—His work on *La législation et le commerce*, is inserted in the economic collection of Guillaumin.

[Adam Smith called Necker "a mere man of detail." Sir J. Mackintosh is the authority for this. Rae, *Life of Adam Smith*, 1895, p. 206.]

A. C. F.

NEGATIVE QUANTITIES occur in economics, as in other sciences, when a variable, passing through zero, becomes less than nothing, so that the addition thereof causes not augmentation but diminution. Most economic quantities are susceptible of this, *change of sign*. Thus wealth, affected with the *minus* sign, becomes debt. The utility attending the consumption of wealth being taken as positive, the disutility of labour incurred by the production of wealth must be regarded as negative. Consumption is negative production. Jevons proposes to employ DISCOMMODITY to signify any substance or action which is the opposite of *commodity*, that is to say, *anything which we desire to get rid of*, like ashes or sewage (*Theory*, 2nd ed. p. 63). Such an article may be said to have negative value. Among articles which have a negative value AGENTS OF PRODUCTION may occur. The loss attending the use of old-fashioned machinery and plant may be considered as a negative "quasi-rent" (Marshall). It is conceivable that, capital becoming superabundant, borrowers would pay a "negative interest," that is, receive a payment for safeguarding and keeping up the capital borrowed (Prof. Foxwell, The Social

Aspect of Banking, *Journal of the Institute of Bankers*, vol. vii. p. 71, 1886). The practical limit to this class of payment would be soon attained. The payment which a waiter makes in order to be allowed to serve in a fashionable restaurant where there is a prospect of gratuities might be described as negative wages.

The geometrical representation of a negative quantity, by reversing the direction of a line, is common in mathematical economics. Thus Jevons (*Theory*, 2nd ed. p. 187) represents the disutility of labour by ordinates measured downwards, the utility of consumption being represented by ordinates measured upwards. Of course the pleasure which may attend initial stages of labour is to be measured in an opposite direction from fatigue. A beautiful example of this construction is given by GOSSEN.

[The philosophy of the subject is stated ably and authoritatively by Cournot in his *Revue Sommaire*, in a passage directed against Mr. H. D. Macleod's peculiar use of negative quantities in economics.]

F. Y. E.

NEGOTIABLE INSTRUMENT. The standard definition of a negotiable instrument is that given by Lord Blackburn, who says, "It may be laid down as a safe rule that where an instrument is by the custom of trade transferable, like cash, by delivery, and is also capable of being sued upon by the person holding it *pro tempore*, then it is entitled to the name of a 'negotiable instrument,' and the property in it passes to a *bona fide* transferee for value though the transfer may not have taken place in market overt." As regards the custom of trade, it is to be noted that the question must be determined by the usage of the English money market, and not by the usage of the country where the instrument was issued, if it be a foreign instrument. The definition itself appears to require two qualifications. First, an instrument, not otherwise negotiable, may be made negotiable by statute; and, secondly, foreign government bonds to bearer may undoubtedly be negotiable, yet the holder cannot sue the foreign government upon them in the courts of this country. The main classes of negotiable instruments are, bills, promissory notes, cheques, bank-notes, exchequer bills, foreign bearer bonds, bearer debentures, and scrip. Postal orders are not negotiable.

[See COMMERCIAL INSTRUMENT; Chalmers on *Bills of Exchange*, 4th ed. p. 312.] M. D. C.

NERI, POMPEO (1707-1777). Born in Florence, a Tuscan economist and statesman. He was a minister of Leopold I. of Tuscany. He also held office in Milan under Maria Theresa and reformed the municipal government there. He presided at the commission of the taxation of the state of Milan, and at the conferences appointed to draw up a coinage convention between the Austrian states in Italy and the states of the king of Sardinia on the Italian side of the Alps. Neri's name is especially associated with the great Leopoldine reforms in which he played an important part; he was entrusted with the compilation of the civil laws for Tuscany; he then undertook economic reforms, suggesting to his sovereign the adoption of free trade in grain, which he was the first in Italy to support, and introduced gradually by the laws of 1763-64 and the edict of 1767—the corner-stone of the edifice of economic freedom in Tuscany. He abolished the duty on foreign corn, taxes and bounties on bread, and overcame the obstacles which hindered the free circulation of cereals in the interior.

Neri's work is of importance from a scientific point of view. In his *Discorso sulla materia frumentaria* he shows that absolute freedom for the corn trade is the only system suitable to Tuscany, and is the fundamental basis of its economic laws, whether agriculture or the general requirements of food production be considered. This treatise formed the basis of those Tuscan reforms on which an illustrious group of economists collaborated. Another important work of Neri's is on the value of money, in which, though he may not state much that is new, he expounds with brevity and clearness the principles regulating the choice of the material for the coins, and defines the regulations according to which money should be minted. He also wrote in 1750 a voluminous report on the basis of the Milanese taxation, a great work of proportionate assessment initiated by Charles VI. in 1718, and carried on by Neri. This report was continued by G. R. Carli in 1776. *Osservazioni sul prezzo legale delle monete*, Milan, 1751.—*Discorso sopra la materia frumentaria*, 1767.—*Relazione dello stato in cui si trova l'opera del censimento universale del ducato di Milano*, 1750.—See, concerning Pompeo Neri, J. Montgomery Stuart, "The History of Free Trade in Tuscany," in the *Cobden Club Essays*.—V. Cusumano, *La teoria del commercio dei grani in Italia*, Bologna, 1877 (Archivio Giuridico).—A. Morena, *Le riforme e le dottrine economiche in Toscana*, Florence, 1886-87 (in the Rassegna Nazionale).

U. R.

NEUMANN SPALLART, FRANZ XAVIER (1837-88). Ritter von Neumann Spallart was an Austrian economist and statistician of high ability whose comparatively early death at about fifty years of age was regretted by friends and colleagues not only in Austria but in all the leading countries of Europe. He was educated at the university of Vienna, where he studied law and economics, and took his degree as doctor of laws in 1862. After travelling for a time in Europe, he returned to Vienna. In 1864 he became professor of political economy at the Vienna commercial academy, and subsequently was appointed to other important educational positions. In 1871 he became an honorary member of the Imperial-Royal Statistical Central Commission, to which body he gave valuable services up to the time of his death. In 1876 he represented the

commission at the International Statistical Congress at Buda-Pesth, at Paris in 1878, in Paris again in 1885, and in London with Professor von Inama Sternegg in the same year, when the jubilee of the Royal Statistical Society took place. This meeting in London was remarkable for the foundation of the International Statistical Institute, the regulations of which Neumann Spallart drafted chiefly in concert with Dr. L. Bodio, though others had a share in that important work. The institute, at its first meeting in Rome in 1887, elected Neumann Spallart as its second vice-president; and though far from well at the time, he did much useful work on that occasion. In the winter of 1887-88, the chest complaint from which he had always suffered more or less grew rapidly worse and he died in April 1888.

Neumann Spallart was the author of a great many volumes and pamphlets, many of them having special relation to Austria-Hungary, as might be expected. A list of his works will be found in the *Journal of the Statistical Society* for June 1888. His most widely-known contribution to statistics is his admirable *Uebersichten der Weltwirthschaft* published at Stuttgart in various years from 1870 to 1883-84. W. H.

NEUTRAL MARKETS. It is one of the main objects of neutral states to keep their markets open for trade in time of war. On the other hand belligerent powers, in their anxiety to deal effective blows at their adversaries, are apt to strike at them through neutral commerce. Since the transactions of neutral markets take place on neutral territory, they cannot be directly interfered with by the states at war. But indirectly they can be injured by interference on the high seas with vessels which carry goods to and from them. Practice has varied from time to time, and sometimes an exceptional usage has been adopted for a while by powerful belligerents (see INTERNATIONAL LAW). Thus the right of confiscating not only enemy goods found on board a neutral ship, but the ship as well, was claimed and exercised by France and Spain at the beginning of the last century. A hundred years later England and France enforced their violent and illegal measures of mutual retaliation at the expense of neutral trade, and to the ruin of neutral markets (see CONTINENTAL SYSTEM; LICENSES (Continental War)). But commercial interests are now far too powerful to be harried with impunity. By the Declaration of Paris of 1856 both enemy goods laden on neutral ships and neutral goods laden on enemy ships are allowed to pass freely to and from neutral ports (see DECLARATION OF PARIS). Leaving out blockade which is *sui generis*, the only exceptions to the rule of freedom are found in the cases of enemy ships, enemy goods on enemy ships, and contraband of war, even when carried in neutral ships. The two former would disappear if private property at sea were exempted from warlike capture. The latter will certainly remain as long as wars continue; for no power is likely to deprive itself of the right to seize munitions of war on the way to an enemy. The usual effect of war on neutral markets is injurious; but sometimes the incidents of the conflict develop a new trade or concentrate in a fresh spot a trade that previously existed. Both these things happened during the American civil war of 1861-1865. Each side bought enormous quantities of arms and ammunition in England; and the neutral British port of Nassau in the Bahamas became the centre of a considerable trade in goods intended to run the blockade of the ports of the Southern Confederacy.

[The references given at the end of the articles cited in the text will apply to the present subject. For the sudden rise of Nassau, and the trade in contraband of war between England and America, see the British and American *Cases* presented to the arbitrators at Geneva in 1872, and M. Bernard's *Historical Account of the Neutrality of Great Britain during the American Civil War.*] T. J. L.

NEUTRAL PROPERTY may be described as the property of neutral states, subjects of neutral states, or enemy subjects domiciled in neutral states. But it must be remembered that, if a neutral subject is domiciled in an enemy's country, his property connected with the enemy domicile is regarded as enemy property for purposes of belligerent capture, and, if an enemy subject is domiciled in a neutral state, only his property connected with the neutral domicile ranks as neutral property. Neutral property in neutral territory is inviolable; but if the land forces of one belligerent occupy a district belonging to the other, they may subject neutral property found therein to all the severities of warfare. At sea neutral vessels, if public, are free from belligerent search, but, if private, must submit to it. They may be subjected to capture and condemnation for an attempt to run a lawful blockade or perform an unneutral service. The usual penalty for carrying contraband of war is confiscation of the cargo only; but in aggravated cases the vessel also is condemned. Neutral goods are not liable to confiscation unless they are laden on board an armed enemy vessel, or connected with a breach of blockade, or contraband in their character. On an ordinary merchantman engaged in ordinary traffic they are safe, even under the enemy's flag (see DECLARATION OF PARIS and the sections on *War* and *Neutrality* in INTERNATIONAL LAW).

[The books referred to in the articles cited above may be consulted, especially Hall, *International Law*, pt. iv.] T. J. L.

NEUTRALITY. See INTERNATIONAL LAW.

NEVES, JOSE ACCURSIO DAS (1736-1834), a Portuguese economist.

He wrote *Variedades sobre objectos relativos ás artes, commercio y manufacturas* (Lisbon, 1814 ff. 2 vols.). He was a protectionist in his opinions, and possessed a very thorough knowledge of the economic history of Portugal.

[Cossa, *Introduction to Pol. Econ.*, English trans., London, 1893.]

NEW CUSTOMS. The title given to the additional duties on certain goods imported by Edward I. in 1302, in distinction to the duties termed "Ancient Customs — antiqua custuma" (see CUSTOM, CUSTOMS DUTIES).

[Dowell, *History of Taxation*, 2nd ed., vol. ii. p. 79 ff.]

NEW IMPOST. The name under which the EXCISE (*q.v.*) was known when that system of taxation was first introduced in 1643. At first "the prime necessaries of life, flesh and salt," were included, and the tax was, and long continued to be, very unpopular.

[Dowell, *History of Taxation*, 2nd ed., vol. ii. p. 9 ff.]

NEW SUBSIDY. The original import duties in England (see IMPORT DUTIES) were called the "subsidy" of tonnage and poundage. The subsidy of poundage was from 1373 onwards for a long time fixed at a shilling in the pound or 5 per cent *ad valorem;* so that in the language of the customs, subsidy came to mean a general import duty of 5 per cent *ad valorem*. The "new subsidy" was the duty at that rate imposed by 9 & 10 Will. III. c. 23 (1697) and appropriated to the civil list. It was long kept separate in the accounts of the exchequer.

[Hall's *History of the Customs Duties.*]

C. A. H.

NEWBURY, JACK OF, a hero of 17th century chap-books, around whose name gathered a multitude of absurd and mythical stories, was in fact a certain John Winchcombe, a wealthy clothier, who carried on business at Newbury early in the 16th century. "Winchcombe's kersies" were well known in the reign of Edward VI.; and his descendants afterwards made their way into the ranks of the county gentry. It is probable that, anticipating the later factory system, he made an attempt to gather a large number of workpeople under the same roof; but all such experiments must have been put an end to by the act of 1553 limiting the number of looms any clothier might possess.

[Ashley, *Econ. Hist.*, vol. i. pt. ii. pp. 229, 236.]

W. J. A.

NEWENHAM, THOMAS (1762-1831), was member of Irish parliament of 1798, and strenuously opposed the union. After its enactment, he settled in England and endeavoured by his writings to spread a better knowledge of Irish affairs amongst English readers. His works include *A Statistical and Historical Inquiry into the Progress and Magnitude of Population of Ireland*, London, 1805, 8vo, wherein, while holding that the population of Ireland tended to double itself in every forty-six years, and that its then population was nearly 5,400,000, he maintained that Ireland was capable of supporting in comfort a far greater population than this.—*A View of the Natural, Political, and Commercial Circumstances of Ireland*, London, 1809, 4to: this work is divided into four parts, the first dealing with the natural advantages which qualify Ireland for the acquisition of commercial wealth, and the latter three in a somewhat confused manner with the causes which frustrated these. These books were reviewed by MALTHUS (*q.v.*), *Edinburgh Review*, July 1808 and April 1809, vols. xii.-xiv. His last publication, *A Series of Suggestions Relative to Ireland*, Gloucester, 1825, 8vo, contained the substance of the evidence he would have given before a House of Commons committee on Ireland had his health allowed him. In this he advocated the establishment in Ireland of banking companies, and strongly opposed the introduction of a poor law (see NICHOLLS, Sir G.), and any system of state-aided emigration.

[*Dictionary of National Biography*, vol. xl.]

H. E. E.

NEWMARCH, WILLIAM (1820-1882). This eminent economist and statistician was a native of Thirsk, Yorkshire. He had but few of the advantages that a middle-class education now affords, and was mainly indebted for his general training to habits of self-culture, and to his association at an early period of life with men engaged in active business pursuits. His earliest bringing-up was as clerk to a distributor of stamps in his native county, then he moved into the service of the Yorkshire Fire and Life Office at York, and afterwards into the banking-house of Messrs. Leathem, Tew, and Co. of Wakefield. Marrying young, and anxious for a wider scope for the exercise of a talent for economical subjects, Newmarch removed to London. There he obtained constant employment on the staff of the *Morning Chronicle* newspaper, and became at the same time second officer of the Agra Bank established in London in 1840. His knowledge of the principles of banking and of general business gained him the influential support of leading men in the city, particularly of William TOOKE, whose close disciple he became in all that relates to economic science and banking. Newmarch, in 1851 resigned his position at the Agra Bank to become secretary of the Globe Insurance Company. Tooke was desirous of continuing his book on the *History of Prices and of the state of the Circulation from 1792*, and upon Newmarch's offering to co-operate with him in writing two additional volumes, the offer was gladly accepted, in the same spirit as Mr.

Danson's offer of assistance had previously been welcomed in the case of the fourth volume, published in 1848. The fifth and sixth volumes in their turn demanded some years of careful study. A vast body of statistics had to be methodised on novel and original principles of treatment. At length, in 1857, the public obtained the advantage of these researches, and they were accepted with approval, both at home and abroad. In Germany, especially, the two volumes were thought worthy of translation and of use in several universities. In 1857, Newmarch gave evidence before the select committee of the House of Commons on the Bank Acts. Like Tooke, he was opposed to the fixing of legislative limits to the issues of the Bank of England, or to the setting aside of a fixed amount of bullion as a guarantee for the circulation. In place of this he advanced the plea that legal convertibility would adequately secure against over-issue. He also advocated a discontinuance of the separation of the issue and banking departments of the Bank of England.

Newmarch had long been associated with the Royal Statistical Society of London as one of its honorary secretaries, he took the utmost interest in its meetings, and in 1869-1871 became its president in succession to Mr. Gladstone. He was also for many years secretary of the Political Economy Club, and was elected a fellow of the Royal Society and a corresponding member of the academy of moral sciences of the Institute of France. In 1862 he quitted the service of the Globe Insurance Company and became the chief officer in the banking-house of Glyn, Mills, and Co., where he remained until shortly before his death in 1882.

Newmarch for more than thirty years contributed some of his best work to the public press, as mentioned previously, to the *Morning Chronicle*, where, in 1853, a series of his papers appeared on the new supplies of gold. Reprinted in London, in 1853, in a volume of 122 pages 8vo, with five additional chapters, they attracted a great deal of public attention, as containing by far the most valuable review attainable on the Californian and Australian gold discoveries, with facts and statements relative to their actual amount, and their present and probable effects.

In 1855 he published an essay *On the Loans raised by Mr. Pitt during the first French War, 1793-1801, with some Statements in Defence of the Methods of Funding employed.* The case was supported by elaborate calculations respecting each loan, supplied by Mr. Frederick Hendriks, and the main contention of the essay was that W. Pitt, in his plan of borrowing, did the best that could possibly have been done for England under the circumstances of the times. The arguments were controverted in a published series of lectures to the university of Oxford by Professor Rickards, but were warmly defended by Earl Stanhope in his biography of Pitt.

In 1861 Newmarch was president of the economic section of the British Association at the meeting in Manchester, and in his address he submitted that full as the thirty years then past had been of scientific achievements, those of economic science and statistical inquiry had a place in the first rank, and had arrived at an intermediate point, at which, after long debate, many of the earlier controversies are finally settled, and from which the way can be seen to a higher level, the least doubtful result of our experience being the discovery that the most solid progress is made by guiding ourselves in the main by close observation of facts, and by employing speculative and hypothetical reasoning under the most cautious conditions, and always with distrust and reserve.

Amongst the most important of Newmarch's contributions to the periodical press, journals weekly and daily, and reviews and magazines, which, although anonymous, did no little in furnishing the public with sound views on banking, free trade, and currency, and on business principles generally, may be mentioned his annual "Commercial History of the Year" in the *Economist*; this was commenced in 1863 and continued down to 1882. Besides this annual contribution of facts and figures on which a superstructure of able reasoning was raised, Newmarch had long been a valued contributor to the *Economist* during the editorships of Mr. Wilson, Mr. Bagehot, and Mr. Inglis Palgrave, and the suggestion came appropriately from the pages of that journal (during the editorship of Mr. Palgrave), that if his surviving friends desired to promote some public memorial of him, no better form of it could be devised than the foundation of a professorship under his name of economic science and statistics. In the result, a subscription was made by them with this object, and the sum of about £1500 contributed for the endowment of the Newmarch lectures at University College, London. F. H.

NEWTON, Sir Isaac (1642-1727). For particulars in regard to Newton's scientific, theological, and other work, reference must be made to the various biographical notices indicated below; it is here only proposed to deal briefly with his work in connection with the Mint and currency questions.

Newton's long association with the Mint arose primarily from the fact that his old college friend, Charles Montague, was Chancellor of the Exchequer in 1695, when the state of the currency was causing very grave anxiety through the prevalent practice of clipping and the impossibility of preventing

the good coins issued by the Mint from being immediately withdrawn from circulation and either melted or exported. The confusion which existed at that time is eloquently described in chap. xxi. of Macaulay's *History*, and some account is also there given of the steps taken to remedy the evil. Montague and Somers, the Lord Keeper, were associated with Newton and Locke in this great work, Newton being appointed Warden of the Mint by royal warrant dated the 13th April 1696, in succession to Benjamin Overton who had been made a Commissioner of Customs. On the death of the Master and Worker, Thomas Neale, Newton was promoted to that office by warrant dated the 3rd February 1700, the appointment dating from Christmas day, 1699. He retained this post until his death in 1727. The warrants confirming his appointment at the beginning of the reign of Anne and of George I. bear the dates 11th June 1702 and 1st January 1714 respectively.

It is hardly necessary to state that in Newton's day the Mint was located in the Tower of London, where it occupied the entire space between the outer rampart and the inner ward or ballium. As Master he was provided with an official residence situated immediately to the left on entering the Byward Tower, but to what extent he occupied it is not positively known. An interesting plan of the Mint buildings, prepared in 1700, is still preserved in the Royal Mint on Tower Hill.

In view of the fact that the last thirty-two years of his life were thus spent in superintending the currency of the country, it is remarkable that so little information of an important character has been published in regard to this portion of the great philosopher's work. Beyond the text of the several warrants referred to above, and occasional references to his attendance at board meetings, reports, etc., the Mint records are silent as to his doings, and even the voluminous life by Brewster, extending to upwards of a thousand octavo pages, dismisses the subject with a few pages, in chap. xix., and these deal with petty administrative difficulties rather than with larger questions such as that which led to his appointment in the first instance. On such questions Newton's opinion seems always to have been acted upon, and his classical Reports of 1702 and 1717 on the relative values of gold and silver and the rating of the GUINEA (*q.v.*), prepared at the instance of the Lord High Treasurer, have frequently been reprinted. The records of the Treasury, however, are rich in evidences of his wide knowledge of matters directly or indirectly relating to currency, and between the 2nd May 1696, the date of "Dr. Newton's oath as Warden of ye Mint," and the 10th November 1725, when he reported on "Portugal coins," the allusions to him in the *Calendar of Treasury Papers* are very numerous, numbering ninety-eight in all. It is impossible within the limits of a short article to discuss the many important matters dealt with in these papers, but a few may be mentioned in order to show at once their importance and their variety. Cases of clipping and counterfeiting are very numerous: he was called on to deal with many memorials, including one in 1697-98 from the well-known engraver Roettier, who supplanted Simon in the reign of Charles II., and, in 1722, to act as Comptroller of Wood's copper coinage for Ireland, rendered so famous by the abuse of Dean Swift, as well as of a similar coinage for the West Indies. Such questions as the watermarking of paper, melting of silver bullion with "pit-coal," and the artificial raising of the price of tin, were submitted to him for report, and it is interesting to note that in most cases the reports which have been preserved, many of considerable length, are entirely in the handwriting of Newton.

It will be convenient to enumerate here for reference his principal reports on currency questions, with their dates.—28th Sept. 1701. Memorial to the Treasury as to the influence of recent changes in the French currency on the relative values of gold and silver coins in England. —7th July 1702. Report to the Lord High Treasurer on the value of foreign gold and silver coins, and on the supply of silver coins in this kingdom. —21st Aug. 1711. Report on a Spanish two Ryall piece.—7th Oct. 1712. On the rating of French money for the use of Her Majesty's forces at Dunkirk, and on the exchange with France and Holland.—21st Sept. 1717. On the state of the gold and silver coins of the kingdom, and on the relative value of gold and silver. —12th April 1720. Report "On the value of Imperial dollars both intrinsically and by way of exchange with Sweden."—10th Nov. 1725. Report on five Portuguese gold coins varying in value from 4s. 4d. to £3 : 11 : 6½.

In regard to the views held by Newton on the general principles of currency, the claim sometimes advanced that he should rank as a bimetallist must not be overlooked. Jevons showed at some length, in an unfinished paper mentioned below, that this view is erroneous. He there states explicitly that Newton's "scheme is not bimetallism," and he adds, quoting from Cantillon, that in reducing the rating of the guinea to twenty-one shillings, "Newton" did not intend to determine between gold and silver moneys a strict proportion as to price, "that is a proportion corresponding with their market price." The currency troubles of Newton's day, complicated though they were, arose mainly from variations in the values of gold coins when measured in silver, the standard of the country, and it would be difficult to imagine more convincing evidence of his far-seeing judgment than the simple fact of our sovereign of to-day being the direct outcome of Newton's valuation of the guinea in 1717.

[Sir D. Brewster, *Memoirs of the Life, Writings*

and Discoveries of Sir I. Newton, 1855; *Synoptical View of Newton's Life* in Edleston's edition of correspondence between Newton and Cotes, 1850.—Article on "Sir Isaac Newton" by R. T. Glazebrook in vol. xl. of *The Dictionary of National Biography*, 1894.—Dana Horton, *Sir I. Newton and England's Prohibitive Tariff upon Silver Money* (1881).—W. S. Jevons, "Sir Isaac Newton and Bimetallism," *Investigations in Currency and Finance*, 1884, pp. 330, 353.]

E. R.

NICÉRON, JEAN PIERRE (1685-1738), was a French Barnabite monk.

He compiled 44 vols. of *Mémoires pour servir à l'histoire des hommes illustres de la République des Lettres avec un catalogue raisonné de leurs ouvrages*, 1722-1745, full of copious and valuable bibliographical information extending to writers who have no claim to the title of illustrious. These *Mémoires* were translated into German a few years after Nicéron's death.

[Guérard, *La France littéraire au 18me siècle*; and Didot's *Nouvelle Biographie Générale*, 1858.]

E. Ca.

NICHOLLS, CHEVALIER JOHN, pseudonym of Plumart de Dangeul (see DANGEUL, MARQUIS DE).

Born in the beginning of the 18th century, master of audits in France, published under this fictitious name his *Remarques sur les Avantages et les Désavantages de la France et de la Grande Bretagne par rapport au Commerce*, Amsterdam (Paris), 1754, supposed to be a translation from the English. He also published a real translation of Ulloa: *Le rétablissement des manufactures et du Commerce d'Espagne*, Amsterdam, 1755.

E. Ca.

NICHOLLS, SIR GEORGE (1782-1865), public servant, entered the maritime employ of the East India Company, at the age of fifteen. After retiring from that service (1815), he settled in 1819 at Southwell, Notts. His attention had been first drawn to the subject of the poor law by reading the Report of the House of Commons committee of 1817. In 1821 he became overseer of the poor for the parish of Southwell, and forthwith set on foot most valuable reforms in administration. The importance of this work is not to be gauged by the extent of the area over which it operated, but by the fact that the Southwell workhouse, together with that of Bingham, was the model on which the whole workhouse system of the new POOR LAW was based. Nicholls was for the most part absent from Southwell after 1823, and left it altogether in 1827, but his work survived, and he relates, with pardonable pride, how, on the occasion of a subsequent visit, he was cordially greeted by a group of labourers, who told him that he had been their best friend, because he had made them help themselves. It was therefore peculiarly fitting that, on the passing of the Poor Law Amendment Act, Nicholls should have been—in August 1834—selected as one of the three new commissioners. He was, at the time, the manager of the Birmingham branch of the British Bank of England, and, so great was their sense of his value, that he was offered an additional £500 per annum if he would remain in the bank's service. Although the broad lines of poor-law policy were settled by the act of 1834, the change to be effected was so great that it was necessary to leave much, with regard to the time and mode of enforcing that policy, to the discretion of the commissioners. The formation of unions, the provision of workhouses, and the issuing of orders for the guidance and government of boards of guardians, were matters requiring the exercise of the utmost tact as well as ability. In 1836 Nicholls visited Ireland, with the view of reporting on the expediency of introducing an Irish poor law. The act, as finally passed in 1838, followed mainly the lines of his report. From 1838 to 1842 Nicholls remained in Ireland, to supervise the introduction of the new law. Important as had been the work of the poor-law commissioners, it was generally recognised that their strength would be increased by coming more closely into touch with parliament. The powers of the board were therefore, in 1847—10 & 11 Vict. c. 109—transferred to commissioners forming part of the government of the day, the services of Nicholls being retained as secretary to the new board. In 1851 he retired, and was made a K.C.B. The loss to the country of his services was given ample expression to in the House of Lords, where Lord Fortescue, who had seen much of him in Ireland, eulogised his great abilities, "persevering industry" and "great self-devotion to the public service," and Lord Brougham, who had conducted the Poor Law Amendment Act through the House of Lords, expressly affirmed that he "was the great and principal agent in devising the new law, and in carrying it afterwards into execution." The first years of his leisure Nicholls devoted to writing the history of the law, in the administration of which he had borne a leading part. When he died he was an old man, and had become, as so often happens, to some extent forgotten. At the present time, however, we are better able to value his services. If, between the advent of democracy in England and its final triumph in our villages, there has been a breathing space of sixty years, wherein the steady and continuous, though incomplete, depauperisation of the labouring classes has gone on, under the operations of a law often ahead of the public opinion of the day, it is to Nicholls more perhaps than to any one man that the result is due.

Nicholls' writings include: *Eight Letters on the Management of our Poor and the General Administration of the Poor Laws*, by an overseer, 1822 (reprinted from the *Nottingham Journal*)-

—*The Farmer*, London, 1844, and *On the condition of the Agricultural Labourer*, London, 1847, 12mo.—*Reports* dated respectively 15th November 1836, 3rd November 1837, and 5th May 1838, in connection with the proposed Irish poor law, the substance of which is given in Nicholls' *History of the Irish Poor Law.—A History of the English Poor Law*, 2 vols., London, 1854, 8vo.—*A History of the Irish Poor Law*, London, 1856, 8vo.—*A History of the Scotch Poor Law*, London, 1856, 8vo.

[*Times*, 25th March 1865.—*Gentleman's Magazine*, 1865, 3rd series, vol. 19, autobiographical information in histories of English and Irish poor laws as above.—*Dictionary of National Biography*, vol. xl., which refers to a MS. memoir coming down to 1864. On Southwell Workhouse, Appendix A of Poor-Law Commission Report, 1834; Mr. J. W. Cowell's Report, pp. 613*a*-618*a*.] H. E. E.

NICOLAI (18th-19th century) undertook historical research on laws respecting food supply and finance in the papal states. In one of his most important reports, Nicolai discusses the organisation of the land tax, arranged by Pius VII., for all parts of the kingdom, bringing together the threads of economic and financial tradition in the papal states. Nicolai studies the different methods of taxation, reform in which was felt necessary by the government, and gives the preference to the land tax in agricultural districts, together with some indirect taxes on consumption to equalise the incidence as far as possible. He agrees substantially with the classical doctrine prevalent at the time, which regarded the land tax, established on the system of the CATASTO (*q.v.*), as the pivot of fiscal organisation. Nicolai's other treatises contain remarks on the supply of food.

Memorie, leggi ed osservazioni sulle campagne e sull' annona di Roma, Rome, 1803.

[See Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1880.—Cusumano, *La teoria del commercio dei grani in Italia*, Bologna, 1877.] U. R.

NIFO, AGOSTINO (1473-1538), was born in Sessa (southern Italy) of a noble family. From 1492 to 1498 he taught philosophy at the university of Padua, then at Salerno and Naples. Many honours were bestowed on him by Leo X., and he was highly esteemed as a philosopher.

In his moral and political pamphlets he discusses economic subjects, and is a faithful follower of ARISTOTLE. Like other writers of his day, Nifo forms a moral rather than an economic conception of wealth. Riches, in his view, are not to be desired for themselves, but only as means to higher ends; thus wealth, taken as the foundation of prosperity in a state, can only be considered the means or instrument of its prosperity.

In the distinction of the different kinds of riches, and in the difference between riches and money, Nifo always follows ARISTOTLE, whilst on other points he adopts the ideas of St. Thomas AQUINAS. He makes a strong distinction between the aims of economic and administrative science and the importance to be assigned to the action of the state in increasing public wealth.

De vera vivendi libertate, Naples, 1530.—*De divitiis*, Naples, 1531.

[See Fornari, *Delle teorie economiche nelle provincie napoletane*, Milan, 1882.] U. R.

NIHILISM (RUSSIAN) is a term connoting various forms of social dissatisfaction, political and economic, mainly among the better-educated classes of Russia. As the name implies, its aim is the annihilation of existing social institutions, and in this respect it forms part of the negative movement of the present day, against all forms of traditional authority, and, so far, it coincides with ANARCHISM. In Russia, however, it is not capital and the *bourgeoisie* that are the object of attack, but government as such. Nihilism arises out of local causes—political, economic, and racial,—and is the outcome of two opposite tendencies of the Slave mind—absolute idealism and cynical realism,—which in combination produce impatient destructiveness and revolutionary passion. The former is represented by Herzen, the latter by BAKOUNIN. Philosophically, the early promoters of nihilism belonged to the Hegelian school (see HEGEL), in which they saw, like K. MARX and his followers, the basis for their own theories of social revolution. Nihilism also owes some of its ideas to the pessimistic scepticism imported with modern French literature, which easily assimilates with the indigenous tendency towards melancholy mysticism. These two act as dissolvents. The passionate cultivation of Physical Science by the fast-growing "literary proletariate" has much encouraged this tendency. The disciples of the materialists, Büchner and Moleschott, are ardent advocates of a complete demolition of the present social system. Politically, nihilism is a reaction against repression by despotic government and an oppressive and corrupt system of BUREAUCRACY, it is liberalism and constitutionalism in some of its aspects, but reforms initiated by "imperial nihilists," such as the liberation of the serfs, have encouraged the movement. To some extent, too, it is encouraged by pan-Slavism as a popular agitation in favour of a "federal united republic of all Slavonic tribes." Even the ancient institution of the MIR, as a relic of agrarian communism, serves as such as a type of democratic self-government, and suggests the extension of its method as the "rural commune" to the whole edifice of society. And, lastly, some of the boldest agents of nihilism are to be found among the Jewish youth, whose zeal has been enlisted in the cause as means of avenging the wrongs

done to their race by the official class. Having stated the causes of the movement, we may now proceed to follow its course. Nihilism proper begins in 1858, following immediately upon the military collapse of the empire, though the secret machinations of radicalism go back to 1846-49. The nihilistic creed, suggested in principle by PROUDHON, was not formulated till 1867, though a sanguinary manifestation of "the central revolutionary committee" appeared in 1862. The growth of socialism in Germany and France from 1863 to 1871 promoted Russian nihilism so much that in the years 1873-76 it displayed great activity, especially in publishing and disseminating periodicals, pamphlets, and appeals in various forms. Then, too, began the rage on the part of the aristocratic youth to "go among the people," living and working among them in disguise, thus to become "simplified" with a view to indoctrinate the operative population with nihilistic ideas. The result was that in 1873, some 156 of them came into collision with the police, whilst 3800 were more or less complicated in the "monster-process (trial) of 193" in 1874-75. Having suffered a slight relapse in 1876-77, in consequence of the Russia-Turkish war, nihilism revived in 1878, when Vera Sassoulitzsch attempted to assassinate General Trepoff, and thence began the duel between the nihilists and the authorities which led to the death of the Czar, Alexander II. (1855-1881), who was "condemned" by the "executive committee" in August 1879. In that year it is computed there were at least 20,000 suspects, the journal *Will of the People* being the organ of the secret conspiracy. Under the reign of the late Czar, Alexander III. (1881-1894), which has been termed the "social empire," and since, nihilism has not appeared much on the surface, but the political trial of five nihilists in 1890, as well as the methods adopted to protect the life of the czar against secret attack, show that the terror was by no means over.

The actual demands of nihilism, as far as they are put into distinct form, are, on the part of the moderate section, amnesty of political offenders, the abolition of the secret police, inviolability of the home, freedom of the press, of speech and meeting, religious equality, the autonomy of towns, communes, and provinces, and the control of public functionaries by county councils, the appointment of imperial commissions of inquiry into the economic condition of the people, and that of a ministry for the encouragement of industry, agriculture, and co-operative associations, with a view to develop the resources of the country. The demands of the new advanced section are, the abolition of monarchy, state-religions, and landed proprietorship; and a free soil for the sustenance of the whole population; and the discontinuance of a standing army and governmental administration; meanwhile the sentence of death is pronounced on all public functionaries hostile to these designs. A proclamation of the executive committee drawn up shortly after the attack on the emperor, Alexander III., sums up the demands of the terrorists as follows:—A representative democratic form of government; permanent parliaments, with full powers to regulate matters of state; extension of local government in the provinces; autonomy of rural communes; the land to be put into the possession of the people; means to be found for placing the factories into the hands of the ARTÉL, or artisan gild; transformation of the army into a militia; liberty of the press and industrial combination.

From this it will be seen that, in its economic bearings, nihilism resembles in many respects the more violent forms of socialism; though one of its most distinguished representatives, Prince Krapotkin, deprecates the collectivist programme, since he objects to authoritative communism, but demands a "free communism" which should secure "economic freedom." Thus the essence of nihilism is "absolute liberty," as Herzen said in 1849, "freedom from all received opinions and traditional hindrances and difficulties, the historical block which prevents the advance of intelligence and stops the way of western progress." The block is the impediment of historical continuity, but the application of this destructive principle of extreme nihilism, which is identical with the extremest form of individualism, would render the historical development of society impossible, it would put an end to society itself.

[K. Oldenberg, *Der russische Nihilismus*, etc., 1888, which gives a succinct and reliable account of the movement and biographical sketches of its principal promoters and agents.—J. Bourdeau, *Le Socialisme allemand et le Nihilisme Russe*, 1892.—Johannes Scherr, *Die Nihilisten*, 1885.—Funck Brentano, *Les sophistes allemands et les Nihilistes Russes*.—Thun, A., *Geschichte d. revolutionären Bewegung in Russland*, 1883.—Kupczanko, *Der russische Nihilismus*, 1884.—J. B. Arnaudo, *Il Nihilismo con lettere di Turgeneff e Herzen*, 1879.—*Le Nihilisme et les Nihilistes* (translated from the Italian).—F. Engels, *Soziales aus Russland*, Leipzig, 1875.—A. Herzen, *Du Développement des Idées révolutionnaires en Russie*, 1853; also *Le Peuple Russe et le socialisme*, 1851.—Ivan Golowin, *Meine Beziehungen zu Herzen und Bakunin*, 1880.—N. Karlowitsch, *Die Entwickelung des Nihilismus*, 3rd ed., 1880.—Stepniak, *The Russian storm-cloud*, and *Underground Russia*, also an article by the same in *Subjects of the Day*, No. 2; also see I. Tourgenieff's novels, *Fathers and Sons*, — *Smoke*, — *Virgin Soil*.—N. G. Tchernychevsky (who is called the Russian Lassalle), *Was thun?* (*Que faire?*)—Tourgenieff giving an observer's view of the movement and its causes, and Tchernychevsky being a principal actor himself. In periodic literature, see articles by Krapotkin, in the *Nineteenth Century*,

March and August 1887,—in the *Fortnightly Review*, March 1882,—an article on Russian nihilism by the Rev. M. Kaufmann in the *Contemporary Review* of December 1880,—and also the *Jahrbuch für Socialwissenschaft und Socialpolitik* edited by Ludwig Richter, 1879-1881.]

M. K.

NITZSCH, KARL WILHELM (1818-1880), became in 1848 extraordinary professor of history at Kiel, in 1858 ordinary professor there, in 1862 professor at Königsberg, and in 1872 at Berlin. He was the author of several works on Roman and mediæval history, chiefly in their constitutional and economic aspects; and by these, as well as by his personal influence as a teacher, he gave a powerful stimulus to the study of economic history in Germany.

His most noteworthy works are those which give the results of his own minute investigations into German town life in the 11th, 12th, and 13th centuries. These are *Ministerialität und Bürgerthum im 11. u. 12. Jahrh.* (1859), published as the first volume of *Vorarbeiten zur Geschichte der Staufischen Periode* which was never completed; and then after a long interval the two articles *Ueber die niederdeutschen Genossenschaften des xii. u. xiii. Jahrh.*, and *Die niederdeutsche Kaufgilde*, printed in the *Monatsb. d. Berl. Akad. d. W.* for 1879 and 1880 respectively. A number of other papers of lesser importance are collected in *Deutsche Studien* (1873). In the *Geschichte des deutschen Volkes, bis zum Augsburger Religionsfrieden*, put together by his pupil G. Matthäe after Nitzsch's death, from his lecture notes and other papers (1882-83; 2nd ed. 1891-92), will be found a sketch, drawn in bold and masterly outline, of the whole development of German society and institutions. He was one of the earliest, if not the earliest, of the professional historians to make the economic element the dominating one in the story of national life. Some account and a criticism of his German history and of his views on mediæval social development are given in the *Econ. Journal*, iii. 686-690.

W. J. A.

NOBLE, a gold coin first issued in 1344, half and quarter nobles being issued at the same time. The following table shows the variations of the coin in different years:

Year.	Value.	Weight.	No. coined from Tower pound.	Fineness.
	s. d.	grains.		carats 23
1344	6 8	$138\frac{6}{13}$	$39\frac{1}{2}$	grains $\frac{1}{2}$; alloy $\frac{1}{2}$ gr.
1346	...	$128\frac{4}{7}$	42	...
1351	...	120	45	...
1414 } 1422 }	...	108	50	...
1460	8 4	...	...	...
1465	10 0	120	45	...
1527	6 8	$71\frac{1}{2}$	...	...

An issue was ordered in 1470-71, but no specimens of it are known, and it was probably not executed. The coins of 1465 were also known as "royals" or "ryals," those of 1527 as "George nobles"; in the latter year there seems to have been also an issue of nobles worth 11s. 3d. These coins gave way finally to sovereigns and half sovereigns.

Note.—The Tower pound, which was abolished by Henry VIII., was $\frac{3}{4}$ oz. lighter than the lb. troy.

[Ruding, *Annals of the Coinage of Great Britain*, 1840.—Kenyon, *Gold Coins*. Where there is a difference in the dates the table follows Ruding.]

E. G. P.

NOBLE OF RAYMOND LULLY. There was a tradition as late as Camden's time that the first English nobles, coined in 1344, were produced by alchemy in the Tower of London by Raymond Lully, the famous mediæval "philosopher"; the inscription borne by the coins,—*Jesus autem transiens per medium eorum ibat*—in reality a charm, was supposed to be mystical. But Lully died many years before this coinage, probably in 1315, and hence could not have assisted in it. In his lifetime he was supposed to have practised the art of transmuting baser metals into gold.

[Camden's *Remains*, art. "Money."—Tyrwhitt's *Chaucer*, vol. iv. p. 183.—Ruding's *Annals of the Coinage of Great Britain*, 1840, p. 220.]

E. G. P.

NOMINAL VALUE. See VALUE.

NORMAL VALUE. See VALUE.

NORMAN, G. WARDE (1793-1882), a clear-headed writer on social, political, and economic questions of his day. In 1833 (reprinted in 1838) he published *Remarks on some Prevalent Errors with respect to Currency and Banking: and suggestions to the Legislature as to the Renewal of the Bank Charter*. The subject was treated under four distinct heads, as follows:

1. The principles on which a paper circulation should be regulated.

2. Examination of suggested remedies for the evils of the present system.

3. Remarks on the late and previous periods of commercial suffering connected with derangement of the currency in this and other countries.

4. The writer's view of the best course to be pursued in the actual state of affairs.

In 1841, *Letter to Sir C. Wood, Bart., on Money and the means of economizing the use of it.* This was published after the sitting of the Committee of the House of Commons, of which Sir C. Wood was Chairman, to enquire into the working of the Bank Charter Act, and at which Norman was examined at length.

In 1849 *An Examination of some Prevailing Opinions as to the Pressure of Taxation in this and other Countries* (4th ed. 1864), in which he established the following propositions:

1. That the financial burdens of England did not seriously press on her resources, and that,

when compared with her augmented wealth, their pressure had been greatly diminished since 1815.

2. That the pressure of these burdens, when compared with the means of bearing them, were heavier in other great European states than in England.

3. That on the whole a spirit of frugality is more apparent and influential in the English Government than in those with which it is usually brought into favourable comparison.

In 1860, *Remarks on the Incidence of Import Duties*. This was written fifteen years earlier, and was a reply to publications by Col. Torrens, called *The Budget* and a *Letter to Sir R. Peel*.

In 1869 *Papers on Various Subjects* (London, 1869, 8vo). This consists of reprints of papers published at various times and on various subjects, many being articles in newspapers—many very interesting, treating, amongst other things, of protection, the laws of partnership, the poor laws, the national defences, the new reform bill, the export of silver to India, the money market, the housing of labourers, the land question, and democratic government.

On almost all these questions he took a peculiarly advanced, and almost modern, standpoint. He pointed out the fallacies of protection and the mercantile system. A. L.

NORMANTE Y CARCAVIELLA, Doctor Lorenzo (second half of 18th century), was probably the first public teacher of political economy in Spain. The uncompromising tone of his lectures and the enthusiastic success of the public discussions which the Royal Aragonese Society organised under his inspiration in Saragossa, were near bringing him into trouble with the Inquisition. His *Discurso sobre la utilidad de los conocimientos económico-políticos y la necesidad de su estudio metódico* (Saragossa, 1784) is the inaugural address, which he delivered at the beginning of his course of lectures. The *Proposiciones de Economía civil y Comercio* and the *Espíritu del Sr. Melon* (1785 and 1786) were written to serve as subjects of debate in the above-mentioned disputations.

[Colmeiro, *Bibl. de Economistas Españoles.*]

E. Ca.

NORTH, Sir Dudley (1641-1690), entered, at an early age, the mercantile profession, and showed such aptitude that, when twenty-one, he became the leading merchant at Constantinople of the Turkey company. He returned to England in 1680, having made a large fortune. In 1683 he was appointed one of the commissioners for the customs, but was afterwards transferred to the treasury. In both these offices he carried out important reforms. At the accession of James II. he returned to the customs. He was the author of a bill imposing new duties on sugar and tobacco. Unlike most of the leading tories, he did not leave London after the landing of William of Orange. The remaining years of his life were occupied in private speculations and in the care of the affairs of his brother the Lord Keeper Guildford's children. We are told that he was much scandalised at the English Poor Law (*q.v.*), but unfortunately his views have not come down to us.

His importance, in the field of economics, rests on his *Discourses on Trade*, London, 1691, 4to, one of the earliest and most luminous statements of Free Trade (*q.v.*) principles. Trade is an exchange of superfluities. Wealth consists not in the precious metals, but in the power to satisfy wants. The error of the Mercantile System (*q.v.*) is thus clearly seen, but North avoids the opposite error. Gold and silver have *some* value in themselves, though their main importance depends on their convenience as a medium of exchange. Money is a commodity of which there may be a glut as well as a scarcity. The common cry of want of money involves a fallacy. The real mischief is the failure to get a profit. This may be the result either of a glut of goods, or of the sudden closing of accustomed markets, or of diminished consumption. It is these causes which require remedying, and the best remedies are activity and prudence. Laws against exporting the precious metals must react against the nation enacting them. "A nation in the world, as to trade, is in all respects like a city in a kingdom, or a family in a city." The main spurs to trade are the appetites of man; hence measures, *e.g.* sumptuary laws, which tend to restrain those appetites, clog industry. The rate of interest depends upon the proportion of lenders to borrowers (see D. Hume). "It is not low interest which makes trade, but trade increasing the stock of the nation makes interest low. To attempt to lower the rate by law is to go contrary to nature." As for the theological arguments, "by them 3 per cent is no more lawful than 4 or 12." North clearly demonstrates the folly of tampering with the coinage. He advocates a moderate seignorage, the wisdom of which advice was proved by the result of the free coinage of silver in 1696-98. The final conclusion of the whole matter is "that laws to hamper trade, whether foreign or domestic, relating to money or other merchandise, are not the means to make a people rich and abounding in money and stock. But if peace be procured, easy justice maintained, navigation not clogged, the industrious encouraged by indulging them in the participation of honours and employments in the government, the stock of the nation will increase, and consequently gold and silver abound, interest be easy, and money cannot be wanting."

[Roscher's *Political Economy*, 13th ed. trans. by J. Lalor, New York, 1878, 8vo, 2 vols., contains numerous references to North. See also Cossa's *Political Economy*, trans. by L. Dyer,

1893, 8vo, and M'Culloch's *Literature of Political Economy* and Introduction to *Tracts*, 1856. For biographical details see *Life of Sir Dudley North* by Roger North, 1744, 4to, and *Dictionary of National Biography*, vol. xli.] H. E. E.

NORTH, THE HON. ROGER (1650-1733), was the sixth son of the fourth Lord North. He read for the bar.

His connection with economic science lies in his authorship of *A Discourse of the Poor, showing the pernicious tendency of the laws now in force for their maintenance and settlement* (London, 1753, 8vo). In this work, after setting forth the existing laws and their inefficiency, North deprecated the use of punishments, which he thought did not influence offenders so effectively as laws of encouragement. He further maintained that the laws for the poor did not help but rather hurt them, and charges these laws with the following consequences: depopulation, enhancing of labour, fall of lands, decay of trade, and increase of the poor.

North proposed the repeal of the whole Elizabethan code.

His other publications are:

Examen: or an Enquiry into the credit and veracity of a pretended complete History, viz. Dr. White Kennet's History of England, showing the perverse and wicked design of it, together with some memoirs occasionally inserted, all tending to vindicate the honour of King Charles II., London, 1740, 4to.—*Life of the Right Hon. Francis North, Baron Guilford, Lord Keeper of the Great Seal under Charles II. and James II.; wherein are inserted the characters of Sir Matthew Hale, Sir George Jeffries, Sidney Godolphin, and other most eminent lawyers and statesmen of that time*, London, 1742, 4to, 2nd ed. 1808, 2 vols., 8vo.—*The Life of the Hon. Sir Dudley North, and of Dr. John North, Master of Trinity College, Cambridge, etc.*, London, 1744, 4to.

[For further notice of R. North, see his *Autobiography*, edited by Aug. Jessop, 3 vols., 1890, Bohn's Standard Library, 1846, 8vo.] A. L.

NORTHCOTE, SIR STAFFORD. See IDDESLEIGH, EARL OF.

NOT NEGOTIABLE. The method of crossing cheques with the words "not negotiable" was introduced by the Crossed Cheques Act 1876. That act is now repealed, and its provisions are replaced by §§ 76-82 of the Bills of Exchange Act 1882. The term "not negotiable" is a somewhat unhappy one, because it is often taken to signify that a cheque so crossed is not transferable. As a fact, however, the cheque is transferable, by indorsement on delivery like any other cheque. The effect of the crossing is that the person who takes the cheque does not acquire, and cannot give, a better title to the cheque than that which the person from whom he took it had (see § 81).

In order to render a bill, note, or cheque incapable of transfer, the drawer or indorser must add words to the instrument or indorsement clearly prohibiting transfer. For instance, a cheque may be drawn or indorsed in the form "pay John Smith only," and then John Smith cannot indorse it away (Bills of Exchange Act, § 8). M. D. C.

NOTABLES, ASSEMBLÉES DES. The *Assemblées des Notables* must be distinguished from the ÉTATS GÉNÉRAUX of the old French monarchy; the latter were more or less a national representative body, whilst the former were the result of an *arbitrary* selection and summons by the monarchs, when they desired to consult on important questions, but intended to keep free from the remonstrances and interference of the States General themselves. Higher officials of the state, lay and ecclesiastical, often made up the majority of the *Assemblée;* its decisions were purely consultative. The first *Assemblée des Notables* was called together by Charles V. in 1369; others were assembled by Louis XI. in 1470, by Francis I. in 1526 (to declare void the treaty of Madrid), by Henry IV. at Rouen in 1596, by Richelieu in 1626. They were convoked for the last time in 1787 and 1788 under Louis XVI. and led to the election of the States General of 1789, which was the first act of the French Revolution.

[See, besides works on the *États Généraux*, Beaurepaire, *Louis XIII. et l'Assemblée des Notables de Rouen en 1617* (Rouen, 1883).—*Collection des Mémoires présentés à l'Assemblée des Notables* (Versailles, 2 vols. 1787) and *Procès Verbal de l'Assemblée des Notables* (Paris, 1788).] E. Ca.

NOTABLES COMMERÇANTS. The first tribunal of commerce in France was instituted by an edict of Charles IX. (November 1563), inspired by the Chancellor de L'Hospital ordering the provost and *Échevins* (aldermen) to summon an assembly of notable *bourgeois* for the election of merchants to the position of consular judges. In 1565 this organisation was extended to the whole of the kingdom, and the articles 618 and 619 of the code of commerce of 1807 maintained it, declaring "that the members of the tribunals of commerce will be elected by an assembly composed of notable merchants, and principally of the heads of the oldest and most recommendable firms," with the proviso that "the list of notables . . . will be drawn up by the prefect (of the *département*) and approved by the minister of the interior." After 1840 it became usual for the prefect to take the advice of the tribunal and chamber of commerce and of the *maire;* in 1883 the electoral body was greatly extended, and now comprises all persons in trade being French citizens, paying their trade-license tax, *droit de patente*, and domiciled for at least five years within the jurisdiction of the tribunal. Since then, however, only a small minority of voters (say 1800 out of 42,000 in Paris) take part in the election.

In Belgium the system of *notables commerçants* has also been abandoned; a law of July 1881 declares that "all persons in trade being communal electors, and paying to the state on account of their *patente* [license] a sum of twenty francs, are entitled to vote for the formation of the tribunals of commerce." E. CA.

NOTE CIRCULATION. The power of issuing notes, that is, of possessing a note circulation, was, in the early days of banking in this country, a privilege greatly valued, and highly profitable to the bank which possessed it. Deposit banking in its strict sense scarcely existed during the infancy of our credit institutions. In the first place, there was but little cash to deposit, and in the next, there were not many persons whose credit was so good that their neighbours would trust them with large sums of money. But to hold the note of a banker in good repute was much easier. The note formed a portion of the circulating medium. Any one to whom the holder owed money was very willing to be paid in that form, and hence, during the early part of the 19th century, the issues of the banks of this country, stimulated partly by high prices, partly by the restriction of specie payments, became very large indeed. Thus in the year 1814, the estimated note circulation of the country was nearly fifty millions, divided as follows:

Bank of England . .	£26,901,000
Country Banks . .	£22,709,000
	£49,610,000

(see Marshall's *Digest*, pp. 55-63). At the present time, September 1895, the figures are about as follows:

Bank of England . . .	£16,800,000
Banks in England, Scotland, and Ireland . . .	£13,200,000
	£30,000,000

This diminution alone shows an enormous alteration in the banking habits of the country, but when we add to it the vast increase in the use of cheques, the clearing-house system, virtually built up within the last sixty years, and all the modern methods for economy of circulation, the difference is far greater, and the part played by the note circulation is now far smaller even than appears at first sight.

Yet it would be a great mistake to imagine that the note circulation is a thing absolutely useless to banks, or that its concentration in the hands of one issuer would be desirable. To a great credit institution like the Bank of England, possessing few branches and only coming in a very modified way into connection with the business wants of the country, the note circulation is a very different thing from what it is to the ordinary trading bank which serves the every-day business wants of the community. The subject is too technical and too closely allied with ordinary business wants to be discussed at further length here.

[For further details see articles on BANKING AND BANK NOTE, in vol. i.—Bagehot, *Lombard Street*. —F. A. Walker, *Money.—Money, Trade, and Industry.—Report, Banks of Issue, 1840, House of Commons.— Report and Evidence, Bank of England Charter, 1832, House of Commons.— First and Second Reports, Banks of Issue, Evidence and Appendix, 1841, House of Commons.— Report and Evidence, Commercial Distress, 1847-48, House of Commons.—First and Second Reports and Evidence, Commercial Distress, 1848, House of Commons.—Appendix and Supplemental Appendix, Commercial Distress, 1848, House of Commons.—Report on Banks of Issue, 1875, House of Commons.—Report on Bank Acts, 1857, House of Commons*, 2 vols.*—Report and Evidence, Bank Acts, 1858.—Correspondence, Chancellor of the Exchequer and Bank of England, 1861, House of Commons.*—R. H. Inglis Palgrave, *Notes on Banking and Bank of England Analysis*, London, 1873.]

NOTES, BOUGHT AND SOLD. This is the name popularly given to notes sent by stockbrokers to their principals, advising them of the sale or purchase of any stock exchange securities. A person who effects such a sale or purchase of the value of £1 or upwards, who omits to send a note of this description to his customer provided with the government stamp (1d. in the case of the value being under £100, and 6d. in all other cases), is liable to be fined to the extent of £20 (Stamp Act 1891, §§ 52 and 53). The contract notes in question generally contain a clause stating that the contract is made subject to the rules and regulations of the London stock exchange, but this provision has in some cases been disregarded by the courts. Thus it was held by the court of appeal that the rule of the stock exchange, which excludes the operation of Leeman's act, is unreasonable and not binding on a principal to whom it is unknown.

[Perry *v.* Barnett, 15 Q.B.D., 388.] E. S.

NOTICE. Notice sometimes means knowledge of a fact, however obtained, and sometimes knowledge conveyed in a formal manner. In sales of property, knowledge on the part of a purchaser of any defect of title causes him to take the property subject to such defect. But he who purchases *bona fide* for value without notice of any defect will as a rule be protected by the courts on the ground that if a person were liable to be deprived of his property because of secret defects in title, no one would be safe in effecting any purchase.

As an example of express notice, reference may be made to the notice of dishonour that has to be given in the case of a BILL OF EXCHANGE in order to make certain parties to the bill liable.

Notice to quit is required whenever a person holds a tenancy from year to year, as such a tenancy

does not by itself involve any fixed time of duration.

Express notices are often necessary during an action in order to give one party the benefit of various legal provisions as against the other party. J. E. C. M.

NOTING OF BILLS. By "noting" is meant the minute made by a notary public on a dishonoured bill or note on the day of its dishonour. The noting consists of the notary's initials, the date, the noting charges, and a mark referring to the notary's register. A label is also attached to the instrument on which is written the answer given to the clerk who makes the notarial presentment.

No direct legal effect is attached to the noting of an inland bill, except that the expenses of noting it can be recovered. It would be convenient perhaps if noting were made *primâ facie* evidence of due presentment. In the case of foreign bills, when protest is necessary, the noting is the incipient protest, that is to say, if the bill has been duly noted on the day of its dishonour, the formal protest may at any time be extended, antedated to the day of noting.

[Bills of Exchange Act 1882, §§ 51, 57, 93. —Chalmers on *Bills of Exchange*, 4th ed. p. 160.] M. D. C.

NOVATIO is the dissolution of an obligation by the formation of a new obligation, as when an informal contract is put an end to by the parties entering into a formal contract. But for the new obligation to put an end to the previous one there must be the intention that it shall do so (*animus novandi*). The object of a novation may either be to change the nature of the relation between the same parties or to substitute a new party in the place of an old one (see also NOVATION). E. A. W.

NOVATION. The substitution of one contract for another. 1. Where a new debtor or creditor is substituted in the place of the former one. For example, if A owes B £100, A may, with the consent of B, substitute C in his (A's) place. 2. Where the parties to a contract remain, but a new form of contract is substituted for the old one. 3. A judgment of a court of competent jurisdiction in favour of a plaintiff discharges the right of action arising from breach of contract. This result is sometimes called MERGER.

[See Hunter's *Roman Law*, London, 1885, and Sohm's *Institutes of Roman Law*, Oxford, 1892, for the Roman law doctrine: and Anson on *Contract*, Oxford, 1892, and Pollock on *Contract*, London, 1894, for the application of the doctrine in English law.] J. E. C. M.

NOY, WILLIAM (1577-1634), a very learned lawyer, was educated at Exeter College, Oxford. He entered parliament in 1604, and at first supported the popular party. In 1627 he was one of the counsel who defended Sir T. Darnell's comrade, Earl, for having refused to subscribe to the forced loan of that year; and in the following year he opposed the granting of TONNAGE AND POUNDAGE (*q.v.*) without conditions. In 1631, however, he became Attorney-General. Finding, by what Lord Campbell calls "musty records in the Tower," that in time of war the king had in the past pressed ships into his service, had further demanded from seaports the equipment of ships, and, on occasions, had ordered adjoining counties to contribute, he, "with his own hand, drew and prepared the writ for ship money," addressed to the sheriffs to provide ships of war, and to assess landholders and others, not having a ship or part of a ship and not serving in one; to levy such assessments by distress or other due means, and to commit to prison the rebellious.

Noy did not live to see the consequences of his measure, as he died in the year in which it was first enforced. He was also the author of the odious project of a soap monopoly. His character is sketched for us by Clarendon in a few vivid sentences. "The court made no impression upon his manners, upon his mind it did . . . of an affected morosity . . . Thinking that he could not give a clearer testimony that his knowledge of the law was greater than all other men's than by making that law which all other men believed not to be so."

Noy was the author of *A Treatise of the Principle Grounds and Maxims of the Laws of England*, London, 1641, 4to, which has passed through many editions. The latest, Albany, U.S., 1870, 8vo, contains a biographical notice. *The Compleat Lawyer*, 1661, 8vo.—*The Perfect Conveyancer*, etc., 1655, 4to.—*Reports of Cases taken in the Time of Queen Elizabeth, King James, and King Charles I.*, London, 1656, 4to; and *A Treatise of the Rights of the Crown*, first published apparently in 1715, 12mo. Noy also left behind him MS. collections he had made from records in the Tower of London, one on matters relating to the maintenance of the royal navy, the other on the privileges and jurisdiction of the ecclesiastical courts.

[*Dictionary of National Biography*, vol. xli. p. 266.—Clarendon's *History of the Rebellion*, vol. i. p. 129, new ed. Oxford, 1826, 8vo.—Campbell's *Lives of the Lord Chancellors*, vol. ii. ch. 62, London, 1845-48, 8vo. Many authorities will be found set out in footnotes of the biographical notice mentioned above. For the arguments upon the legality of ship-money, see Cobbett's *State Trials*, iii. 826-1254.] H. E. E.

NUDUM PACTUM. An agreement unenforceable at law. An agreement that wants that element the presence of which will make the law enforce it, is said to be *nudum*. *Ex nudo pacto non oritur actio*. In Roman law agreements were enforced when made (1) by formal words; (2) by delivery of a *res* in four cases; (3) by written entry in an account book: but in four cases, viz. sale, hire, mandate, and partnership, the later Roman law required an agreement only. In English law an agreement is not enforceable unless it is either (1) a con-

tract of record, (2) made under seal or (3) supported by a consideration.

[Sohm's *Institutes of Roman Law*, Oxford, 1892. —Anson *on Contracts*, Oxford, 1892.] J. E. C. M.

NUMERICAL DETERMINATION OF THE LAWS OF UTILITY is the title given by Jevons (*Theory of Political Economy*, 2nd ed. p. 158) to an operation which he, like GOSSEN, regards as possible—the ascertainment of the form of DEMAND CURVES by statistics of prices and consumption. It may be objected to this phrase, that laws of utility cannot be deduced from laws of price, except on the assumption that price is the measure of utility —the Marginal Utility of money being constant (see FINAL DEGREE OF UTILITY). But, even upon this assumption, there are great difficulties in the way of the statistical operation. First, the utility derived from a set of articles is in general not the simple sum, but some unknown function, of the utilities derived from each. Thus the amount consumed of any one article will vary with the prices of others—especially of those which are substitutes for the one under consideration, as tea is for coffee, or complementary to it, as bats are to balls. Accordingly, to observe the changes in the demand for an article corresponding to the changes in its price is apt to be nugatory unless it can be assumed that the prices of all other articles are constant. Again, utility is not only a complicated function of the amounts consumed, but a variable one, changing its form with every vicissitude of taste and fashion. Professor Marshall has pointed out these and other difficulties (*Principles*, bk. iii. ch. iii.), and attempted to evade them (*ib.*, last section). F. Y. E.

NUYTZ, GAETANO (18th-19th century), was a native of Lombardy, and wrote a book on money of some interest. Nuytz follows the ideas common in his day distinguishing between intrinsic and current value of money. He condemns alterations in money and considers laws against the export of specie useless. He remarks on the conveniency of an abundant coinage up to a certain limit of saturation in the market, and he also recognises the use of paper money in limited quantity. He is not without mercantilist tendencies (see MERCANTILE SYSTEM), which he displays in his investigation into the causes that may increase or diminish money, and also in his proposals for increasing it. There are, in his work, several striking digressions on the theory of value and on luxury and financial matters.

On the whole, however, he has little scientific merit, particularly when compared with other and earlier writers, as well as with those of his own day whose economic ideas were already inspired by new modes of thought.

Forza della moneta nella società, Milano, Anno VI. repubblicano. U. R.

OASTLER, RICHARD (1789-1861), known during his lifetime as the "Factory King" on account of his services to workers in factories, was born at Leeds. His father, originally a linen merchant from Thirsk, afterwards became steward of the Fixby (Huddersfield) estates of T. Thornhill, who had property in land both in Yorkshire and Norfolk. Richard Oastler was the youngest of eight children, and inherited from his father both a reputation for generous sympathies and an active interest in public affairs. On his father's death in 1820 he succeeded him as steward, and in this capacity resided at Fixby Hall, near Huddersfield, where he remained during the most important part of his career. Oastler described himself as "a Tory and a Churchman," and it is therefore not surprising to find that during the agitation for the Reform Bill he strenuously opposed the popular party; even some years later he was averse to mingling personally among mill-hands because, he said, "they were usually Radicals and Dissenters." But his work soon changed this attitude. He first came before the public in Yorkshire as a supporter of William Wilberforce in the agitation for the abolition of negro slavery (see ABOLITIONIST); but though living in the heart of manufacturing Yorkshire, he was totally ignorant of the unhappy conditions of the factory hands in the mills near him. In 1830, however, while on a visit to his friend John Wood, a mill-owner, of Horton Hall, Bradford, Yorkshire, the latter remarked to him, "I wonder you have never turned your attention to the factory system, for I assure you there are cruelties daily practised in our mills on little children which, if you knew, I am sure you would strive to prevent." With characteristic energy, Oastler at once wrote a powerful letter on "Yorkshire Slavery" to the *Leeds Mercury*, then, as now, a highly influential West Riding paper. The letter, dated 29th September 1830, provoked a lengthy correspondence. More than this, it was the beginning of an agitation that lasted many years, for the reform of the conditions of factory labour, especially in the case of children and young persons, and for a reduction of hours of work, which finally resulted in the Ten Hours Bill, and other well-known FACTORY ACTS (*q.v.*). In this agitation Oastler took a leading part both in speaking and writing. Meanwhile, however, he had the misfortune to be imprisoned for debt at the instance of his employer, Mr. Thornhill. He had been dismissed from his stewardship in May 1838 owing to his using his influence in the Halifax and Huddersfield

districts against the new poor law, and though he had repaid all but a small portion of a debt which he owed Mr. Thornhill, he was, two years after his dismissal, thrown into the Fleet Prison (9th December 1840) for this remainder. Here he edited a journal called the *Fleet Papers*, devoted to the discussion of factory and poor-law questions. He remained in prison till his friends, including John Walter of the *Times*, W. B. Ferrand, M.P., John Fielden, M.P., and other well-known factory reformers, got up an "Oastler Liberation Fund" amounting to £3000 to pay his debt (£500 only) and other expenses. He was liberated in 1844, and made a triumphant public entry into Huddersfield, 20th February. He continued his labours as a reformer till the passing of the Ten Hours Act of 1847, but afterwards retired to a small cottage, "South Hill," at Guildford in Surrey, where he lived in poverty and seclusion till his death at Harrogate (22nd August 1861).

Oastler's claim to notice lies in his activity as a reformer of the worst evils of factory life, in spite of bitter opposition. In his opinions he was a protectionist, and opposed the new poor law. A statue was erected to his memory (1869), at Bradford, Yorks, the scene of many of his labours, but he is now almost entirely forgotten by the working classes to whom he gave his life.

[No proper biography of Oastler exists, but one or two sketches of his life have been issued: cp. *Sketch of the Life and Opinions of Richard Oastler* (Hobson: Leeds, 1838, many years before his death); Taylor's *Biographia Leodiensis*, pp. 499-503; *The History of the Factory Movement* by "Alfred" (the pseudonym of Samuel Kydd), London, 1857, gives as good an account of him as any other book, with many extracts from his speeches; and there is a fair biography in the *Dictionary of National Biography* (Smith Elder, 1895); cp. also Gibbins' *English Social Reformers*, (Methuen, London, 1892). Oastler issued numerous controversial letters and pamphlets, now forgotten, and besides *The Fleet Papers* (1841-44), edited a weekly paper devoted to the factory workers' cause, called *The Home* (May 1851 to June 1855).] H. de B. G.

OBJECTIVE EXCHANGE VALUE. See VALUE.

OBLIGATIO is a legal relation by which a determinate person has a legal claim against another determinate person to some act or forbearance on his part reducible to a pecuniary value. Such a relation may arise either from contract, quasi-contract, delict, or quasi-delict. E. A. W.

OBLIGATION. By the older writers on English law, the term "obligation" is used in a restricted sense. It denotes simply a bond under seal, with a money penalty. But now it is used in the wider sense of the Roman lawyers, who employed the term as correlative to *jus in personam*. An obligation is the legal tie (*juris vinculum*), whereby one person is bound to another, to do or abstain from doing some particular act or thing. There is probably a tendency to confine the term to obligations arising from contract, while the obligations arising from wrongs are more usually described as liabilities (see Holland's *Jurisprudence*, ed. iv. p. 199). M. D. C.

OBRECHT, GEORGE (1547-1612), the son of a *syndic*, mayor, of the city of Strasburg, studied law in Tubingen and in France, where he narrowly escaped death during the massacres of protestants at the time of the Saint Bartholomew. He was a celebrated professor of law in his native town, where the *gymnasium* founded by Johann Sturm, in 1538, developed (1621) into a university, and became, after the decay of the Saxon universities, a flourishing centre of academical learning very much under the influence of learned Frenchmen, especially of BODIN (*q.v.*).

Obrecht's economic writings were, after his death, privately printed in 1617 by his son. They were only published in 1644 under the title of *Funff underschiedliche Secreta Politica* They bear strong evidence of the influence of Bodin; thus Obrecht maintains that the property and not the persons of the subjects ought to be assessed, and that necessaries ought never to be taxed. At the same time, Obrecht remained free from any leanings to the mercantile school. He insisted on an honest monetary policy, as well as on the usefulness of population statistics, but under this last respect with fiscal, rather than scientific aims.

In imitation of Bodin, who himself had been influenced by the existence in Italy of institutions founded to endow young girls at the time of their majority, Obrecht suggests the foundation of an *Aerarium Liberorum* extended to children of both sexes, in which parents would be obliged to effect a deposit at the time of the birth; the deposit was to bear a yearly interest of 6 per cent, which being capitalised, the whole was to be repaid to the children at the age of twenty-one for the sons, and seventeen for the daughters. But here also, fiscal prepossessions were lurking under the appearance of a provident system, for in case of death in the interval, the larger part of the collected money was to accrue to the public treasury.

Obrecht has been considered as a striking personification of his time, but not in advance of it (Roscher, *Geschichte der Nat. Oekonomik in Deutschland*, pp. 150-158). For his standing as a jurist, see Stintzing, *Geschichte der deutschen Rechtswissenschaft*, vol. i. pp. 672-676, who also mentions that in 1617 an unauthorised and spurious edition of the *Secreta Politica* appeared in Rostock (1617) under the title of *Oeconomia Institutionum Obrechtiana*. E. CA.

OBSERVATION AND EXPERIMENT. Every science is founded on experience. The scientific inquirer either may take experience as it comes to him, casually, or he may make experience for himself. In the former case he

learns by observation, in the latter he learns by experiment. Observation is our ordinary, and in some branches of science our only, resource, but experiment, where it is possible, affords a more direct access to knowledge. For if the student conducts his experiment in a scientific spirit, he knows all the conditions which can affect the result, whereas, when he merely observes, he can be far less certain that his observation has been exhaustive. The phenomena of nature are so complex and so interdependent that they usually admit of a variety of explanations, and even protracted and careful observation may not afford the crucial instances which would enable the inquirer to reject all the explanations which are unsound. At the same time observation and experiment are not to be regarded as distinct methods. Experiment is but a means of extending the field of observation.

In economic research both observation and experiment are attended with peculiar difficulties. The aid of experiment is rarely available. The close relation between economic phenomena and other elements of human welfare usually forbids the production of economic phenomena at will. Even when an economic experiment is tried, it is usually tried under circumstances which deprive it of most of its scientific value. An employer may introduce an eight hours' day in his works, or a board of guardians may suppress outdoor relief, and the results of either of those experiments may afford valuable information. The change may be made so rapidly as to produce its effect before the conditions, which may be comparatively simple, can be appreciably altered. Yet even in cases such as these we can by no means exclude the action of the plurality of causes. The workman whose day of labour is experimentally shortened may have a peculiarly strong motive to efficiency which might disappear if the reduction of hours had received the sanction of law or custom. The suppression of outdoor relief in one union may give idle and thriftless persons a motive for flitting into other unions. When we pass to innovations of wider scope, we find ourselves still more remote from the conditions of scientific experiment. The effects of an important law or a far-reaching invention are inextricably mingled with the effects of many other causes. That the effects of steam-power or of a policy of free trade have been immense, nobody will deny. But how much of our present economic state is due to the one or the other no one will attempt to describe with absolute accuracy. Many other potent causes have co-operated in producing our modern economic order, and the effects are inextricably blended and interfused We may say, therefore, that experiments sufficiently accurate to satisfy the standard set by physical inquirers are practically *impossible in political* economy.

Observation, therefore, is almost the sole means of obtaining the knowledge of facts required by the economist. But observation, as a source of scientific knowledge, labours under two distinct disadvantages, the plurality of causes and the intermixture of effects. The same phenomenon may have been produced in different instances by different combinations of causes. And again the effects of many causes may be intermixed in the one phenomenon. Both of these disadvantages may be experienced in attempting the same economic observation. They may be partially overcome by enlarging the field of observation as widely as possible. But even then the observation which is most fruitful for economics "is in the main not observation of complex economic facts, but of elementary economic forces and the conditions under which they operate. It is by the agency of those forces that complex economic facts are built up" (Keynes, *Scope and Method of Political Economy*, p. 166). Thus little can be done by mere collection of instances towards ascertaining the respective effects of such forces, for example, as free trade and protection. Nor can the "personal error" of the observer be eliminated as in cases where more exact methods of "justifying" observation are possible.

Whether observation is complete or not, it cannot be carried out satisfactorily without the aid of theory, and the theory may require much modification after its first inception. When a theory clashes with a fact it must be modified or abandoned, but a new theory must inevitably take its place. Students of economic history who come into collision with theories derived from the experience of one age, and too hastily applied to explain the facts of another, are apt to forget that theorising is both inevitable and beneficial. Whether they are aware of it or not they are themselves theorists. For economic history involves, over and above the accumulation of facts, some criterion of the importance of those facts, and some scheme for their arrangement which must be supplied by the mind of the historian.

Yet the economist enjoys an advantage in observation which may be turned to good account. A student of human action, and himself a human being, "he starts with a knowledge of ultimate causes" (Cairnes, *Logical Method of Political Economy*, p. 75). The student of physical science does not possess this advantage. The man in the street knows why mankind desire riches. But the most profound inquirers took thousands of years to discover the nature of the forces which keep the earth in its orbit. The economist must indeed remember that human nature, whilst almost unchangeable in its primary attributes, is infinitely variable in its secondary manifestations. Inference from his own nature to the nature of other men is dangerous no doubt, but it is very helpful.

The economist may therefore proceed deductively so long as he is careful to test his results by recorded experience. Observation of external facts is rather the corrective than the basis of his studies. On account of this peculiarity of economics, a substitute for experience may, as Cairnes remarks, be found in the construction of hypothetical cases. In political economy hypothesis "is never used as a help towards the discovery of ultimate causes and laws; just as in physical investigation it is never used as a substitute for experiment" (*Logical Method*, p. 84). It is only right to add that we should never forget the abstract character of the results obtained in this manner.

[Mill, *System of Logic*, bk. vi.—*On the Logic of the Moral Sciences* and *Essays on some Unsettled Questions of Political Economy*.—Venn, *Empirical Logic*.—Cairnes, *Logical Method of Political Economy*.—Bagehot, *Economic Studies*.—Keynes, *Scope and Method of Political Economy*.—Sidgwick, *Principles of Political Economy*.—Marshall, *Principles of Economics*.—Cunningham, The Relativity of Economic Doctrine (*Economic Journal*, vol. ii.).—Cliffe Leslie, *Essays in Political and Moral Philosophy*.—Jevons, *The Principles of Science*, 1st ed., 1874.] F. C. M.

OCCUPATIO is the acquisition of ownership by taking possession of a thing belonging to no one, such as a wild animal, a derelict, or thing abandoned by its owner; property of a public enemy, etc. E. A. W.

OCCUPATION. In Roman law the (OCCUPATIO) taking possession of a thing that belonged to nobody with the intention of becoming owner of it gave the occupier the right of ownership. In this way ownership could be acquired over wild animals or derelict property. The doctrine has descended to modern law, and in England has been applied to the capture of wild animals, the appropriation of free natural elements, the collection of substances from the sea or shore, and the severance of articles from trees or from the soil. Probably it would also be applied to the finding of a thing which has been absolutely abandoned by, or has become irrecoverably lost to, its former owner. See Pollock and Wright's *Possession in the Common Law*, Oxford, 1888. In Roman law, however, there was no property in game.

The doctrine was applied to a limited extent in the case of real property. If A were granted an estate for the life of B and A died before B, the first person to occupy the land could retain it until B's death. This was abolished by 29 Car. II. c. 3, § 12; 14 Geo. II. c. 20, § 9; and the 7 Will. IV. and 1 Vict. c. 26, §§ 3, 6. The doctrine has also been applied to support the appropriation of new countries by European states. Discovery followed by occupation was considered to give a good title.

[For an account of the Roman law doctrine, see Hunter's *Roman Law*, London, 1892; and for its application in international law, see Maine's *Ancient Law*, London, 1886, and Phillimore's *Int. Law*, London, 1879-1889.] J. E. C. M.

OCHR-EL-GUERCH. The smallest denomination of the Egyptian currency, as reorganised by the Khedivial decree of the 14th November 1885, is the Ochr-el-Guerch, ten of which are equal to a piastre; while 100 piastres make an Egyptian pound, the standard of value.

Five coins bear the name Ochr-el-Guerch, as follows:

Nickel 5 Ochr-el-Guerch	Bronze ½ Ochr-el-Guerch
„ 2 „ „	„ ¼ „ „
„ 1 „ „	

F. E. A.

OCTROI. France and (under the name of *dazii interni di consumo*) Italy are now the only countries where *octrois* or taxation of urban consumption play a prominent part in local finance. They began to spread in France during the 14th century, and as they required a royal concession or *octroi*, the kings always stipulated that their treasury should take a share of the proceeds—one half from 1663. Suppressed with all other indirect taxes in 1791, they were re-established for Paris in 1799 under the designation of *octroi municipal et de bienfaisance*, and the provincial municipalities were empowered to do the same by a general law of the following year (*loi de frimaire, An VIII.*); they have been several times the object of general legislation, especially in 1814, 1816, 1871, and 1884. In a general way, *octroi* duties are only allowed on (1) drinks; (2) eatables (wheat, flour, bread, and colonial produce, already liable to customs, excepted); (3) fuel; (4) fodder; (5) building materials, with legally fixed maximum rates graduated and rising with the number of the population. They may not assume the character of a local protectionist tariff, nor of a toll on transit and transports. To prevent contraband, smaller *communes* surrounding a large town may, with the preliminary sanction of government, be made subject to its *octroi*, but all monies levied on their territory must be paid over to them. A new *octroi* can only be established by a statute, and every increase of *octroi* duties must be ratified by the superior authorities. As the state levies taxes on drinks at the entrance of towns, the *octroi* duties on such may not, without its agreement, exceed those exacted by the state. Until 1855, one-tenth of the proceeds was made over to the latter. This forced contribution was then suppressed; since 1881, one-fifth is to be applied to primary education.

Owing to the latitude left within these limits to the 1500 great and small French communes possessing *octrois* in 1894, and representing together one-third of the population of France, owing to the complexity of local financial wants, of ways of perception (about one-half of the *octrois* being farmed or managed by the

state), and also of local consumption (varying, for instance, between wine, cider, and beer), average numbers convey a very inadequate notion of the sums paid per head of urban population, of the proportional cost of collection, etc. Taking the twenty chief towns of France, the cost of collection fluctuates between 5 per cent (Paris) and 14·65 per cent (Bordeaux), the general average being 8·09 per cent. In this respect a considerable improvement has been realised within the last sixty years; formerly the same average oscillated between 20 and 25 per cent. In Paris each inhabitant pays 58 francs (say £2 : 6 : 8) a year, of which 19 francs (15s. 10d.) is on wine, and 13 francs (10s. 10d.) on eatables, whilst for the rest of France the total average is only 13 francs (10s. 10d.); the gross proceeds amount to about £12,000,000 sterling, whereof one half for Paris alone. The staple articles are taxed as follows in Paris:

Wine (per hectoliter = 22 gallons)	10·62	francs	(8s. 10d.),	yielding in 1890	47	millions of francs	(£1,880,000)
Pure alcohol (contained in spirits, liquors, etc.)	79·80	,,	(£3 : 6 : 6)	,, ,,	13	,, ,,	(£520,000)
Butcher's meat (per 100 ks. = 222 lbs.)	9·73	,,	(8s. 1d.)	,, ,,	10	,, ,,	(£400,000)
Butter ,, ,,	14·40	,,	(12s.)	,, ,,	2·8	,, ,,	(£112,000)
Cheese ,, ,,	11·40	,,	(9s. 6d.)	,, ,,	1	,, ,,	(£40,000)
Coals ,, ,,	0·72	,,	(7d.)	,, ,,	10	,, ,,	(£400,000)
Oats ,, ,,	1·50	,,	(1s. 3d.)	,, ,,	2·6	,, ,,	(£104,000)

The *octroi* also collects on wine and alcohol, at their entrance in Paris, a supplementary tax of 8·25 (6s. 10d.) and 186·25 (£7 : 8s.) francs per hectoliter on account of the national revenue, thus burdening the ordinary beverage of the Parisian workman with a total tax equal to the cost of inferior wines when leaving their native vineyards. Objections have often been raised to the principle of an *octroi* duty, and its abolition demanded; but it would be a very arduous reform to carry out under the actual conditions of French finance, general and local. It would no doubt be feasible in smaller places, but in Paris, where it provides more than one half of the ordinary municipal receipts—145 millions of francs (£5,800,000) out of 267 (£10,680,000), —it seems well-nigh impossible to discover an appropriate substitute, and, invoking the plea of necessity, most French financial economists, though admitting that *octrois* are an evil, would endorse Prof. Wagner's dictum, that "its maintenance constitutes the financially least objectionable and relatively even the best system" (*Finanzwissenschaft*, iii. p. 915). Still, even those who do not see their way to a radical suppression, demand a mitigation of the dues on the so-called hygienic drinks (wine, beer, and cider), which, to influence retail prices, would, on account of the duties levied for the state, require an agreement between the state and the municipality. This plan is advocated by M. Paul Leroy Beaulieu (*Économiste Français*, 23rd and 30th April 1892, and 10th February 1894). M. Léon Say is willing to go further than this; he proposed, at a meeting of the *Société d'Économie Politique*, a general redistribution of general and local, direct and indirect taxation (*Journal des Économistes*, December 1891, pp. 449-461).

The most usual objection to *octrois* is that they press heavily on the means of urban consumers, especially of the working classes. This objection is undoubtedly valid in Paris as to the dues on drinks, but even including the latter, M. Paul Leroy Beaulieu comes to the conclusion that a working man only pays in Paris 22 or 23 francs (18s. 4d. or 19s. 2d.) for his yearly share; he, besides, enjoys exemption from the tax of 11 per cent on house rent, since he generally pays for himself and family 300 francs (£12), and all house rents under 500 francs (£20) are exonerated (*Traité des Finances*, i. pp. 735-737). It is not at all certain that this same workman would be appreciably benefited by the suppression of the moderate dues (say 5 per cent) on butcher's meat, butter, and the like articles, the difference between retail and average prices of these articles, when sold by the farmers and rural breeders, being enormous and out of all proportion to the dues. The same difference exists between the price of corn and the price of bread, both of which are free, and their dearness must be ascribed to bad trade organisation. It should also be noticed that, in Belgium, the abolition of *octrois* thirty years since produced no marked influence on the price of victuals, at least in large towns like Brussels, Antwerp, and Ghent. The suppression of low *octroi* duties, and a slight reduction of high duties, such as those on wine, would probably be far more beneficial to tradesmen and dealers than to the lower and middle class consumer; the latter would be much more pinched by an increase of the tax on house rents, an increase often pointed out as the financially most promising substitute. The plan followed in Belgium in 1860—the raising customs and excise duties, and paying over the surplus thus obtained as well as a percentage of the postal revenue to the *communes*,—would bring about the relief of the urban at the partial expense of the far more numerous rural population, which, in the present political state of France, would resent this method of reform. All these considerations render it probable that the total abolition of *octrois* is not to be expected in France unless in a very remote future. Still the municipality of Lyons has this year (1895) voted the principle of the abolition of its *octroi*.

Outside France and Italy taxes on urban consumption exist in a few continental towns,

for instance, in Bavaria, and in the chief towns of Austria, but here the "open country" (*das flache Land*) is also subject to them, although in a lesser degree than the "enclosed towns" (*geschlossene Städte*). For an instance of *Octroi* in Glasgow in the days of Adam Smith, see *Life of Adam Smith*, by John Rae, p. 67.

Besides the already mentioned works and the leading French treatises on finance, see, among recent works, Guignard, *De la Suppression des Octrois.*—Carré, *Suppression des Octrois de la Ville de Paris.*—Saint Julien and Bienaimé, *Histoire des Droits d'Octroi à Paris.*—Lesourd, *Législation des Octrois.*—Yves Guyot, *La Suppression des Octrois* (Report to the Chamber of Deputies, 1889).—Tramuset, *La Réforme de l'Octroi et de l'Impôt des Boissons.*—Cohn, *Finanzwissenschaft*, pp. 647 *et seq.*—Reitzenstein, *Conrad's Jahrbücher*, vols. xlii. and xliii.—Menger, *Zusammenstellungen zur Reform der Verzehrungssteuer* (Vienna, 1887).—Bastable, *Public Finance*, pp. 481-488. The abolition of the Belgian *octrois* led to the publication of an extensive official report, entitled *Abolition des Octrois Communaux en Belgique—Documents et Discussions Parlementaires.* E. Ca.

ODDY, J. Jepson (died 1814), merchant; was a member of the Russia and Turkey or Levant Companies.

He wrote *European Commerce*, etc., London, 1805, 4to, and *A Sketch for the improvement . . . as exemplified by the inland navigation of Europe in general and of England in particular, including details relating to the intended Stamford Junction navigation to unite the Eastern with the Midland and Western counties of England*, London, 1810, 8vo. Oddy unsuccessfully stood for parliament for Stamford.

[*Gentleman's Magazine*, 1814, pt. ii.—M'Culloch's *Literature of Political Economy*, p. 55.] H. E. E.

ODEL TENURE. See Udal Tenure.

OFFICIAL RECEIVER. Under the Bankruptcy Act 1883, certain persons have been appointed by the board of trade "official receivers" of debtors' estates. When a "receiving order" is made for the protection of the debtor's estate, an official receiver thereby becomes receiver of the debtor's property pending the appointment of a trustee.

Under the Companies Winding-up Act 1890, the official receivers have to discharge duties in the winding up of companies similar to those they perform in bankruptcy.

[Robson's *Bankruptcy*, 1894.—Lindley on *Companies*, 1891.] J. E. C. M.

OFFICIAL VALUES. This term was for many years a survival from the earliest attempts to record the value of British imports and exports. The office of inspector-general of imports and exports was constituted in 1697, and about the same time an official tariff was prepared for his guidance in computing the values of goods passing through the customs. This tariff was based on the existing prices of commodities, and, doubtless, for some years very fairly represented actual market values. But as prices changed, the official rate of computation was continually diverging more widely from those actual values. When, towards the close of last century, statisticians came to deal with the figures of trade, it soon became notorious that they did not correspond to facts. Constantly in the closing years of the century the inspector of imports and exports would place separately on record his computation of real values. The first official step towards reform was made in 1798, when the new "convoy duty" (an export duty) was levied on declared value. From that time it was customary to record the exports both according to the official tariff and according to their "real value," as will be seen by the statistical tables from 1800 to 1854. In the latter year, computation according to real value in all customs statistics was inaugurated.

For some time it was argued that though the official values did not represent value, they were a guide to quantities: but the suggestion did not bear examination. The official value remains a statistical curiosity (see also Imports and Exports).

[First *Report* of Customs Commissioners, app. v. 1857.—*Sessional Papers*, vol. iii.—Porter's *Progress of the Nation*, 1847, § 3, ch. ix.—M'Culloch, *Account of British Empire*, pt. iii. ch. v., note.] C. A. H.

OGILVIE, William (1736-1819), after having completed his studies in Glasgow (1760-61) and Edinburgh (1761-62), became travelling tutor to Alexander, 4th Duke of Gordon, with whom he seems to have visited France and Italy; he was from 1762 to 1817 professor of philosophy and humanity at King's College, Aberdeen.

His anonymous tract, *An Essay on the Right of Property in Land with respect to its foundation in the Law of Nature. Its present establishment by the Municipal Laws of Europe, and the regulations by which it might be rendered more beneficial to the lower ranks of Mankind*, London, printed for J. Walter, Charing Cross, 1782, is alluded to in Godwin's *Enquiry concerning Political Justice*, 3rd ed. 1798, bk. viii. ch. iii. p. 459, and ch. ix. p. 515. "All riches," says Godwin, "and especially hereditary riches, are to be considered as the salary of a sinecure office, where the labourer and the manufacturer perform the duties, and the principal spends the income in luxury and idleness." In a footnote he adds: "This idea is to be found in an essay on the right of property in land, published about twelve years ago by an ingenious inhabitant of North Britain, pt. i. § iii. par. 38, 39. The reasonings of this author have sometimes considerable merit, though he has, by no means, gone to the source of the evil." Ogilvie, besides having inspired the father of English communism, may claim the honour to have been among the first advocates of agrarian reform, aiming at "an increase of the number of farmers, by favouring the movement of

day labourers and manufacturers, to the more animating and manly occupation of cultivating a small farm for their own account" (introd.). His theory, indeed, is more far-reaching. Starting from LOCKE'S theory of property, he reasons that although "all right of property is founded either in occupancy or labour" (§ 1), "in every country where agriculture has made considerable progress, these two rights are blended together, and that which has its origin in labour is suffered to eclipse the other, founded in occupancy" (§ 8). The natural right to an equal share of the soil being thus in conflict, as in America, with the right to the additional produce of a fertile soil by labour, the problem of agrarian legislation consists in its solution. The present state of land-tenure not only allows the land-holder to monopolise the *original* and *accessory* or *improved*, but also the *contingent* or *improvable* value of the soil (§ 14). This is "a most oppressive privilege, by the operation of which the happiness of mankind has been for ages more invaded and restrained than by all tyranny of the kings, the imposture of priests, and the chicane of lawyers taken together, though these are supposed to be the greatest evils that afflict the societies of human kind" (§ 28); "a monopoly which tends not less to the starving of their fellow-citizens, than a monopoly of bakers without any control or inspection of the magistrate would do. It will not produce its effects very suddenly, indeed, it is only a lingering piecemeal famine, under which the individual languishes, and the race becomes dwarfish, debilitated, and deformed" (§ 33). "What other cause than this pernicious monopoly can be assigned why population has been so long at a stand in Europe, and does not advance with nearly the same rapidity as in America" (§ 34, cp. also § 36). This passage seems to have been adopted by Godwin, and the fact is known to have served as a battle-ground to MALTHUS. Ogilvie certainly first accentuated the well-known sentence of A. SMITH, with whom he sympathises in matters of free trade, concerning the unearned increment (see INCREMENT, THE UNEARNED). "Whoever enjoys any revenue, not proportioned to such industry or exertion of his own, or of his ancestors, is a freebooter, who has found means to cheat or to rob the public, and more especially the indigent of that district in which he lives. But the hereditary revenue of a great landholder is wholly independent of his industry, and secure from every danger that does not threaten the whole state" (§ 39). By the abolition of this monopoly, the poor laws would be rendered superfluous; the tendency of reform in land must consist in uniting "the essential equality of a rude state with the orders, refinements, and accommodations of cultivated ages" (§ 43). Laws limiting the extent of land acquired by individuals could be introduced in new settlements; but the author sets his highest hopes, similar to the PHYSIOCRATS, in absolute monarchs; his ideal is a military and social royalty, as the prototype of which he proposes Frederick the Great (§ 49, 61, 74). For such events he proposes a scheme, "a progressive agrarian law," as he calls it, the principal points of which are the following:—That every citizen aged twenty-one years or upwards may, if not already in possession of land, be entitled to claim from the public a certain portion, not exceeding forty acres, to be assigned him in perpetuity for cultivation and residence; that the claimant shall have right to choose the situation of his allotment on any farm, freehold, or uncultivated common within his own parish; this allotment shall be set apart, and its landmarks fixed by the magistrate, with the aid of an assize, etc.; the ground thus set apart shall be submitted to the cognisance of an assize, or of arbitrators, who shall determine what reserved perpetual rent the claimant must pay to the landlord, etc.; he is obliged to reside upon his farm, has right to transmit it to his heirs, but if he sells to another, who shall not reside upon it, one-tenth part of the price, or the reserved rent, shall belong to the public (§ 51). But if this reform would be made "wholly consonant to natural justice," it should be accentuated by the following provisions: "that lands acquired in this manner shall not be transmitted by will, but according to the established rules of succession to landed property, the original lord of the manor being *ultimus haeres;* no allotment shall be united to another by succession; it shall not be lawful to break down any such allotment in order to divide it among children, until in any county the uncultivated lands are wholly exhausted; persons acquiring such allotments shall be obliged to perform double service in the militia of their country; in every competition that may arise, orphans and those that have served in the army or navy shall be preferred to all others; finally, the acquisitors "shall pay to the lord of the manor certain aids and services of a feudal nature, so regulated as to produce that degree of connection and dependence which may be expedient for preserving order and subordination in the country without danger of giving rise to oppression and abuse" (§ 71).

In order to hasten the development of small farms, Ogilvie advocated a tax imposed on large farms and short leases, a tax on barren lands, and finally a tax on all augmentation of rents, which he seems to consider as an *impôt unique*, but within a sense approaching more to that of Mr. Henry George than of the physiocrats. Ogilvie also proposes the appointment of a special board, in order "to purchase such estates exposed to sale, and to divide them into small farms of a single plough only, to be given off in perpetual property for a full reserved rent" (§ 63). He suggests similar reforms to be introduced in India and Ireland (§ 74). Ogilvie's ideas, although insisting on the injustice of the landholder's monopoly, are rather similar to the aims of modern social politics with its "allotment," "homestead laws," with intended regulation of agrarian succession in Austria and Germany, than on the lines of land nationalisation. Like a modern Christian socialist, he appeals to an "alliance between the church and the plough" (§ 59). This explains as well the grounds of difference between him and Godwin, as the slender recognition of the merits of his little work among his English contemporaries.

The *Essay on the Right of Property in Land*

has been reprinted in 1838, 12mo, and recently edited with biographical notes by Mr. D. .C. Macdonald, under the title, *Birthright in Land*, London, 1891. The editor has utterly failed to grasp Ogilvie's importance for economic history, but gives valuable references concerning Ogilvie and his contemporaries amidst much declamatory matter. He quotes: Pryse Lockhart Gordon, *Personal Memoirs*, London, 1830.—Donald Sage, *Memorabilia Domestica*, Wick, 1889.—Fr. Douglas, *A general description of the East Coast of Scotland*, Paisley, 1782.—Jas. Hall, *Travels in Scotland*, 1807.—M'Culloch, *Literature of Political Economy*.—Sir James Mackintosh, *Memoirs*, 1835.

[See M'Culloch's *Literature of Political Economy*, p. 310, for Sir James Mackintosh's unfavourable opinion of Ogilvie.] S. B.

OLIPHANT, CHARLES (19th century), writer to the signet, drew up the *Report on Friendly and Benefit Societies, exhibiting the law of sickness as deduced from Returns by Friendly Societies in different parts of Scotland, to which are subjoined tables showing the rates of contribution necessary for the different allowances, according to the ages of the members at entry, etc.*, issued by a committee of the Highland Society, Edinburgh, 1824, 8vo. The report is noteworthy as being the first serious attempt to work out a scale of contributions from trustworthy statistics. The inquiry was confined to the age and sickness of members, and was not extended to deaths. The tables of the average duration of sickness among persons of various ages were founded on the experience of 73 different benefit societies, belonging to 16 out of the 33 Scotch counties, both Lowland and Highland, and representing 104,218 years of life. The conclusions are to some extent vitiated by the fact that these societies contained many members who had joined from philanthropic motives, and had never made any claim to the benefits. In 1825 Oliphant gave evidence before the Select Committee of the House of Commons, which sat in that year and in 1827, the outcome of whose labours was the Act of 1829, 10 George IV. c. 56 (see FRIENDLY SOCIETIES).

[Baernreither, *English Associations of Working Men*, London, 1889, 8vo, p. 235, mentions the report.] H. E. E.

OLIVARES, DAMIAN DE (beginning of the 17th century). His *Memorial sobre las fábricas de Toledo*, presented to the *junta* or board convoked in 1620 by Philip III., in order to ascertain the causes of the decay of Spanish manufactures, gives statistical information on the quantities produced, wages paid, etc., in the silk and woollen manufactures of Toledo and the country around. An analysis of this *Memorial* was inserted by MARTINEZ DE LA MATA (*q.v.*) in his own *Memoriales* (pp. 22, 24, 34), themselves reprinted in CAMPOMANES' *Apendice á la Educacion Popular* (Madrid, 1775). "The opinion," writes Olivares, "that trade with foreigners ought to go on, must certainly be inspired by the devil, who is anxious to destroy a kingdom which God had preserved so Catholic and so Christian."

[Colmeiro, *Hist. Ec. de España*, p. 335.] E. Ca.

OLUFSEN, OLUF CHRISTIAN (1764 to early 19th century), was appointed in 1815 professor of political economy in the university of Copenhagen.

Olufsen was editor of the Danish *Economic Annals* (1797-1820). He published, in Danish, a *Treatise of Practical State Economy*, 1815, and an *Oversigt af National Industrien i Danemark*, 1819. The latter was translated into German, and published (1820) in Altona. E. Ca.

ONE POUND NOTE. An issue of the pound notes has taken place at various dates and under various circumstances in England and Wales. They still exist and form a large part of the circulation of the issuing banks of Scotland and Ireland, nearly £5,000,000 out of £7,000,000 with the former case, and £2,500,000 out of £6,000,000 in the latter, being below £5, which is practically understood to be £1 notes, in July 1895. In England they never appear to have formed proportionately so large a part of the circulation. The Bank of England was allowed to issue them for the first time by the act of 1797, in which year also the country banks were permitted to do the same. This power, as far as the country banks were concerned, was withdrawn by the act of 1822, and the Bank of England withdrew its notes about the same period. Since that date to the present time no serious proposal has been made, till that of Mr. Goschen in 1892, to employ one pound notes in England. Mr. Goschen's plan was connected with the desire to increase the gold reserve at the Bank of England. As the arrangement would have increased the fluctuations in the reserve, it does not appear that any greater stability could have been looked for. Mr. Goschen proposed his plan without apparently having much confidence in it, and the feeling of the business community on its withdrawal was, on the whole, one of satisfaction. No important European bank now issues notes for so low a denomination; the lowest denomination now issued at the Bank of France being for 50 francs (£2); at the Bank of Germany 100 marks (£5); at the Bank of Holland 25 florins (£2 : 1 : 8). After 1872 the Bank of France issued notes for 20 francs and 25 francs (16s. and 20s.), but withdrew them as rapidly as possible from the fact that they were forged with much facility. In the speech on the bank charter in the House of Commons, 6th May 1844, Sir R. Peel expressed a very strong opinion against the issue of notes for a lower sum than £5, in order to preserve an adequate amount of specie in circulation throughout the country.

[Tooke and Newmarch, *History of Prices*, vols.

i.-vi.—Malachi Malagrowther (Sir Walter Scott) *on the Proposed Change of Currency, etc.*, 1826.—R. H. Inglis Palgrave, *The Bank Acts of 1844-45 and the Bank Rate*, Institute of Bankers, 2nd March 1892.]

ONELY, Rev. Richard (1723-1787), rector of Speldhurst, Kent, author of *An Account of the Care taken in most Civilised Nations for the Relief of the Poor*, London, 1758, 2nd ed., 1772, 8vo. The civilised nations dealt with are the Jewish theocracy, the early Christian church, the Egyptian, Greek, and Roman states. The pamphlet closes with a brief and bald epitome of the English poor laws. H. E. E.

ONEROUS PROPERTY, such as property consisting of land burdened with the payment of rent or other onerous covenants, shares on which there is a liability, unprofitable contract rights, etc., may be disclaimed by a trustee in bankruptcy within three months after his appointment, or within two months of his becoming aware of it. The disclaimer determines the interest of the bankrupt in the property, but does not affect the rights or liabilities of third parties (*see* Mortgagee). Leases may not be disclaimed without the consent of the court, and, as regards any onerous property, the power to disclaim is lost if the trustee, within a certain period of receiving a requisition from an interested party, fails to declare his intention. The damages arising through the operation of a disclaimer (*e.g.* the rent which a lessor loses by the disclaimer of a lease) are proveable as a debt in the bankruptcy.

[Bankruptcy Act, 1883, § 55.] E. S.

ONEROUS UTILITY. See Gratuitous Utility.

OPEN FIELD SYSTEM. See Manor and Three Field System.

OPEN POLICY (Marine Insurance). By a valued policy a valuation is put on the subject matter insured. On the other hand, an open policy does not fix the value of the subject matter insured, but, subject to the limit of the sum insured, leaves the amount payable by the insurer to be ascertained after loss. For the purpose of ascertaining the amount, certain more or less arbitrary rules have been worked out by the judges, who have hesitated between two conflicting principles of indemnity, but in the main have adhered to the principle that the assured ought to be put in the same position as he was in when the adventure commenced, and not in the position which he would have been in had it been carried to a successful termination.

[See Arnould's *Marine Insurance*, ed. 6, p. 67 *et seq.*] M. D. C.

OPERARIUS. A manorial tenant who actually worked for his lord on the land at various kinds of agricultural labour, and had not commuted his services for a money payment (see Manuoperationes). In the *Testa de Nevill*, p. 186, the annual services of a *villanus* are valued at 8½d., but those of a *nativus operarius* at 8s. 4½d. R. H.

OPIUM, as a State Monopoly. Opium, the inspissated juice of the poppy, is produced on a large scale in India, China, and Persia. The opium in common use in Europe for medicinal purposes is as a rule of the so-called Smyrna or Turkey variety, and is obtained mostly from Asia Minor and Persia. That which is produced in India and China is less rich in morphia than the former variety, and is used by many Asiatic races, including the Chinese and the populations of India, as a narcotic and stimulant. It is both eaten and smoked; the latter form of consumption being chiefly, though by no means exclusively, prevalent in China.

Opium is of interest to economists chiefly because, throughout that part of India which is British territory, it is the subject of an extensive state monopoly. This is of considerable antiquity, dating back to a period anterior to the establishment of British rule in India. Under the Mogul empire the trade in opium was an imperial monopoly, and farmed at a quit-rent. Up to the period of the British acquisition of Bengal and Behar, the Dutch were the chief purchasers. Instructions to make opium a part of the investment were first issued by the British East India Company in 1683. During the anarchy which prevailed throughout the decay and fall of the Mogul empire in the middle of the 18th century, the imperial monopoly fell into abeyance; trade was disorganised; cultivation fell off; and the opium produced was so generally adulterated that it yielded very poor prices. Even after the restoration of comparative peace in 1765, disorder continued. At length, in 1773, Warren Hastings, then governor-general of Bengal, assumed on behalf of the East India Company a monopoly of all opium produced in Bengal, Behar, and Orissa, subject to certain concessions secured to the Danes, the Dutch, and the French, which have now either lapsed or been commuted for a money payment.

The rights thus acquired were at first farmed; but in 1797 the direct or "agency" system was introduced, and is still in force. Under this system, as now administered, the cultivation of the poppy plant is generally prohibited throughout British Indian territory. It is permitted, however, in eleven districts of Bengal and twenty-nine districts of the North-Western Provinces under license; the cultivators, who receive periodical advances from government, are bound under penalties to deliver the whole of their crop to the agent at a rate previously fixed. This rate has fluctuated slightly. From 1881-82 to 1893-94 it was Rs.5 per *seer* (1 lb. 14 oz. nearly) of 70° consistence, *i.e.* 70 parts in 100 being pure opium, the remainder being water. It is now Rs.6 per *seer*.

The opium delivered to the agents is manufactured at the two state factories, situated at Patna, and at Ghazipur near Benares, into "provision" opium, adapted for export to China, and "excise" opium, for consumption in India. The average cost of a chest (=140¼ lbs.) of provision opium has varied during the last ten years from Rs.412 to Rs.449. The same opium, when sold at the government auction for export to China, has realised average prices ranging from Rs.1037 to Rs.1251 per chest. The excess of the sale price over the cost price may be regarded as the duty which the existence of the state monopoly enables the government to impose. This at present exceeds Rs.800 per chest, *i.e.* is not far short of twice the cost price of the drug.

In most of the native states of India poppy cultivation is prohibited. But in an important group, the majority of which are situated in Central India and Rajputana, a large amount of opium—the so-called Malwa opium—is produced. In these states the British government has no concern with the cultivation, manufacture, or sale; but the native rulers levy a variety of imposts, among which is usually included a special rate of land-tax on land suitable for poppy. This opium is not permitted to enter or pass through British territory, for local consumption or export to China, save under passes granted by a British agent, and on payment of a heavy transit or import duty. The rate of duty has varied from time to time, and is now Rs.650 per chest (=140¼ lbs.) of 90° consistence. This is equivalent to Rs.527 on opium of the consistence of Bengal opium. The British government is enabled to levy this duty by reason of the fact that the opium cannot reach the sea for export to China without passing through British territory.

The propriety of maintaining the Bengal monopoly has been frequently considered by Indian and other authorities. Regarded from an administrative standpoint, the monopoly system is, it is now generally conceded, superior to any that could be substituted for it. In 1864 it was condemned, on purely economic grounds, by Sir Charles Trevelyan, then Indian finance minister, who held that its abolition would be "attended with the same good effects as the throwing open the India and China trade, and the abolition of the Bengal salt monopoly," *i.e.* by a large expansion of the trade. Such a result would not, at the present day, be ordinarily regarded as favouring the abolition of the opium monopoly. Other authorities, including Sir W. Muir, have attacked the monopoly on the ground that it casts upon government "the odium . . . of not only encouraging the growth of the poppy, but of itself being the direct trafficker in the drug and its monopolist." On the other hand, Sir J. P. Grant, a former lieutenant-governor of Bengal, has maintained that "the distinction, *as a question of ethics*, between raising a revenue from opium by an excise on consumption and a duty on exportation, and raising the same revenue by monopolising the manufacture, is fanciful and false." As a measure of finance, the abolition of the monopoly and its replacement by an export duty is easily shown to be disastrous. The state profit on a chest of Bengal opium is over Rs.800, whereas the export duty on a similar chest of Malwa opium is only Rs.527. It follows that if the quantity of opium produced remained the same, there must be an enormous loss of revenue; while if the revenue remained the same, the quantity of opium produced must be very largely increased.

The policy of China in regard to the local production and import of opium has varied from time to time, cultivation and import being alternately prohibited and permitted. It is known that the poppy was extensively cultivated in China, and opium imported from abroad many years before the English became concerned in the trade. It is frequently alleged that the Chinese wars of 1840-42 and 1856-58 were waged in order to compel that country to receive Indian opium. Two of the best authorities, however, Mr. H. N. Lay and Sir, Thomas Wade, strenuously deny that this charge has any basis of truth. They affirm that opium was a mere incident of the first war, and had no concern whatever with the second; and that the object of both wars was to compel the Chinese to have political and commercial relations with us. The opium trade became legal after the Treaty of Tientsin (1858). The tariff duty and *likin*, or inland transit duty, are levied together and regulated under the Chefoo Convention (1876).

The Indian opium trade in all its bearings has lately formed the subject of an exhaustive inquiry by a royal commission appointed in 1893. The report states that the evil arising from the use of opium is less than has been represented in England, and that the commissioners have no evidence of extensive moral or physical degradation arising therefrom; that no case has been made out for prohibition, nor could such a measure with justice be extended to the native states; that the Bengal monopoly is the best system for regulating the production of opium in British India; and that the present treaties which govern the admission of opium into China have been deliberately accepted by the Chinese government, and admitted by the latter to contain all that they desire. The finding is, in substance, that unless China should hereafter declare a wish to prohibit import, there are no grounds for interfering either with the export trade, or with the production and local consumption in India.[1]

[1] There still exists, however, in the minds of many persons in England, a strong desire to see the British government in India cease to appear as the manufacturer of an intoxicant; but no corresponding desire has been expressed by them to supply a less objectionable source of revenue to the Indian government, to make up the deficiency.

[Dr. G. Watt, *Dictionary of the Economic Products of India*, London, 1892, vol. vi. pt. i. art. "Opium."—*Report of a Commission appointed by the Government of India to inquire into the Working of the Opium Department in Bengal and the N. W. P.*, Calcutta, 1883.—Mr. H. N. Lay, *Note on the Opium Question: a Brief Account of our Relations with China*, London, 1892.—Hansard's *Parliamentary Debates*, vol. liii. pp. 670-950; vol. cxliv. pp. 1391-1846.—*Correspondence relating to China*, presented to parliament in 1840.—*Final Report of the Royal Commission on Opium*, 1893-95.] E. N. B.

OPTIMISM. The term optimism is difficult to define. Strictly it should signify the belief that everything which exists is the best possible. But as there is scarcely any pessimist who denies absolutely the existence of good, so there is scarcely any optimist who denies absolutely the existence of evil. Optimism therefore can describe only the belief that good greatly preponderates in the world, or that evil admits of being resolved ultimately into good. Such a belief may be the result either of temperament or of a process of logical inference. In so far as it is the result of a happy temperament, it cannot be communicated to those whose disposition is less cheerful. In so far as it is the result of logical inference it may take various forms. All who regard the universe as the work of reason, in other words, all theists, must be optimists in one sense or another. But among theists even within the bounds of the Christian church there may be wide differences in the nature of their optimism. Some may concentrate their minds on the corruption of man and others upon the benevolence of his Creator. St. Augustine or Calvin would hardly be termed optimists in the ordinary use of that word. Paley was an optimist in every sense. Now one of the characteristics of the period in which modern political economy took its rise, the period between the close of the Thirty Years' war and the outbreak of the French Revolution, was a general optimism. Religious wars and persecutions had impressed the most active minds with indifference or disgust for the theological views which came down from the middle ages, and which were permeated with distrust of human nature and aversion to the pursuits of the world. In contrast to these views the antique conception of nature kept alive by the Roman law again attracted philosophers and became the germ of new moral and political theories. Natural religion took the place of revelation, and natural goodness of asceticism. Natural instincts were again regarded as innocent and deserving of gratification. Much stress was laid on those amiable and social instincts which find their fulfilment in promoting the happiness of others. Providence, it was held, had so ordered the world that each man in seeking to satisfy his own desires contributed to the general welfare. Virtue was identified with the rational pursuit of happiness, and thus was made to appear easy and natural. From these first principles the inference in favour of freedom was irresistible. Restraint or compulsion was in itself an evil because it was painful, and in most cases restraint or compulsion was unnecessary, since human instincts harmonised by divine wisdom tended of themselves to bring about the good of mankind.

This form of optimism pervades the discussion of education, of legislation, and of economics by the most celebrated writers of the 18th century. It is very noticeable in the writings of the physiocrats and of Adam Smith. Adam Smith cannot indeed be charged with taking too exalted a view of human nature. He assumes that men are generally employed in promoting their own interests, and he objects to any regulation that can be dispensed with, because he thinks that it is likely to be inspired by selfishness. Adam Smith's optimism lies rather in overrating the ability of the individual to perceive his interest, and in assuming a providential harmony between the self-interest of various individuals if placed in a state of legal freedom and equality. It is only after a prolonged discipline that the ordinary civilised man has attained even to his present imperfect knowledge of what is good for him, and even now the pursuit of his own welfare by each individual constantly brings him into conflict with others.

Since Adam Smith wrote upon morals and economics, optimism has been discouraged by several causes. In the first place, the French Revolution showed that the glorification of natural impulses might end in crimes and disorders as great as had ever been produced by fanaticism. In the next place, the struggle of nation with nation, and of class with class, for the last hundred years, has compelled us to see that there is no pre-established harmony between the appetites of different human beings. In the third place, the rise in the standard of comfort has produced an all but universal discontent. Mankind are probably more comfortable than in any former age, yet the difference between that which they enjoy and that to which they think themselves entitled is more noticeable than ever. Lastly, the progress of science has disturbed the cheery, old-fashioned view of nature. Malthus showed that nature has not provided an abundant subsistence for an indefinite number of persons. Darwin showed the evolution of life to have been a process of almost infinite length involving wholesale waste and destruction. Those who have adopted a formal and philosophical pessimism are few, but those who maintain the easy optimism of the 18th century are fewer. There are many who propose to make mankind

happy by political or economical changes, but as a rule they propose to do this by subjecting the individual to the community. For with the old optimism the old belief in liberty has also declined in strength.

The change in the tone of economic literature may be realised by comparing Smith's *Wealth of Nations* with J. S. Mill's *Principles of Political Economy*. Leslie Stephen, *English Thought in the Eighteenth Century;* Bonar, *Philosophy and Political Economy;* Ritchie, *Natural Law*, may be consulted for information respecting the philosophical optimism of the last century. F. C. M.

OPTIONS. An "option" is the right to conclude a bargain on a future date, at a certain price. A "buying option," called also "the call," is the right to demand a certain number of shares, or amount of stock, or quantity of some specified produce, within a given time, at a fixed price; and a "selling option" is the right to sell, or "put" stock shares or produce under the same conditions. A "put and call" is a right of either buying or selling at a fixed price. Upon this plan speculations may on one side be made with a small capital, and with only a certain limited risk. But the net profits of the speculation are diminished by the price given for the option; and the probability of any profit resulting is really very small, because the price demanded is sure to be large enough to cover all the chances which the dealer can foresee.

Options are chiefly dealt in on the Stock Exchange, but are also frequently used in the United States in transactions in wheat and other produce (see PUT AND CALL). R. W. B.

ORA (Anglo-Saxon). The ora was a money of account introduced into England by the Danes, and does not appear at any time to have been a coin in use in this country.

In the reign of Edward the Elder (901-924), fines imposed upon the English population were reckoned in shillings, while sums due from the Danes were calculated in ora. The Danes used the term to designate both a weight and a cash value. The weight is alluded to in one version of the Laws of Ethelred as one-fifteenth of a pound, and the value is frequently referred to in DOMESDAY BOOK (*q.v.*) as that of twenty shillings. Subsequently, however, record exists of a lower rating of sixteen shillings being also used. The modern Scandinavian ÖRE is doubtless the lineal descendant of this ancient money of account.

[R. Ruding, *Annals of the Coinage of Great Britain*, 1840.] F. E. A.

ORDER (bill or note payable to). At common law a bill or note could not be negotiated by indorsement unless it contained words expressly authorising transfer. But § 8 of the Bills of Exchange Act 1882 has adopted the Scotch rule, and now provides that a bill is payable to order which is expressed to be so payable, or which is expressed to be payable to a particular person, and does not contain words prohibiting transfer, or indicating an intention that it should not be transferable. The result is that if a bill or note is made payable to A. B. it is in legal effect payable to A. B. or his order. The same rule applies to indorsements. M. D. C.

ORDER AND DISPOSITION. The ownership of personal property, as a rule, can be transferred by delivery of possession. Possession of property is therefore evidence of ownership. Where a purchaser or a mortgagee of chattels permits them to remain in the possession of the vendor or mortgagor, the latter appears to the world at large as owner, and is therefore able to obtain credit as such. In order to protect creditors, successive bankruptcy acts have made all goods that are in the "possession, order, and disposition" of a bankrupt, in his trade or business, by permission of the owner, and of which the bankrupt is the reputed owner, liable for payment of his debts, even though such goods belong to some one else.

[Robson on *Bankruptcy*, 1894.] J. E. C. M.

ORDERS IN COUNCIL (retaliatory against France). The battle of Trafalgar (21st October 1805) annihilated the French fleet, put an end to all schemes for an invasion of England, and secured English supremacy at sea for the remainder of the war. Soon afterwards the battle of Austerlitz (2nd December 1805) broke up the great coalition which Pitt had formed, and gave to France an ascendency in Europe such as no power had obtained for centuries. From this time the two great belligerents, England and France, unable to strike each other directly, were forced to resort to the destruction of each other's commerce, and began a struggle limited only by their respective powers of endurance. The peculiar difficulty of this warfare against commerce, which now became the main object of both states, lay in the injury which it must necessarily inflict upon neutral powers, whose interests in time of war are always opposed to those of belligerents. Both in 1780 and in 1800 the Baltic states had shown their hostility to any infringement of their trading rights by forming an ARMED NEUTRALITY (*q.v.*). And there was now another neutral power to be reckoned with. The United States had become independent in 1783; since the outbreak of the war they had developed a considerable mercantile marine, and their geographical position gave them peculiar advantages for carrying on trade between the West Indies and Europe. The attitude of the United States becomes a factor of first-rate importance in the relations between England and France after 1805.

England took the first step when the Grenville ministry, which had been formed on Pitt's death, issued an order in council on 16th May 1806. This decreed a general blockade

of the whole coast from the Elbe to Brest, and a rigorous blockade from Ostend to the Seine. No neutral vessels could enter a port on the latter coast, and outside the narrower limits they were only admitted provided they "had not been laden at any port belonging to his Majesty's enemies." This order, which was not for the time an excessive straining of the maritime ascendency of England, gave Napoleon a pretext for issuing the famous Berlin decree (21st November 1806), which laid the foundation of what is known as the CONTINENTAL SYSTEM (*q.v.*). By this he declared the British Islands to be in a state of blockade, prohibited all trade with them, and decreed that all goods exported from them were lawful prize. This decree, which France would have found it extremely difficult to enforce, provoked the whig ministers to draw up the first of the great orders in council, which was issued on 7th January 1807. This document, which was condemned by the opposition as a very inadequate measure of retaliation, ordered "that no vessel shall be permitted to trade from one port to another, both which ports shall belong to or be in the possession of France or her allies, or shall be so far under their control as that British vessels may not freely trade thereat." This prohibition of the coasting trade went beyond any previous claim of England, which had hitherto aimed mainly at preventing the carriage of goods from French colonies to the mother country. It was bitterly resented by the Americans, who had discovered a lucrative business along the Mediterranean coasts from which they were suddenly excluded under penalty of capture and confiscation.

In March 1807 the Grenville ministry was driven from office and their places were filled by tories, who were more resolutely anti-French and less scrupulous in the choice of expedients. Soon afterwards Napoleon ended the northern war by the treaty of Tilsit (8th July 1807), by the secret articles of which France and Russia pledged themselves to effect the complete exclusion of England from trade with Europe. Napoleon now returned to Paris, and devoted all his energies to the carrying out of his continental system, which he had been compelled to neglect during the campaigns of Eylau and Friedland. Denmark, Portugal, Prussia, Austria, and Turkey were all coerced or induced to prohibit the entrance not only of English vessels but of all English products. French ships were instructed to seize the vessels of any power if they carried any goods of British origin, and French courts were instructed to declare the cargoes of such vessels to be lawful prize.

These vigorous measures gave the tories a pretext for that energetic retaliation which they had demanded when in opposition. On 11th November 1807 they issued another order in council which asserted that the "order of 7th January has not answered the desired purpose, either of compelling the enemy to recall his orders or of inducing neutral nations to interfere with effect to obtain their revocation, but, on the contrary, the same have recently been enforced with extreme rigour." The main provision of the order is that "all the ports and places of France and her allies, or of any country at war with his Majesty, and all other ports or places from which, although not at war with his Majesty, the British flag is excluded, and all ports or places in the colonies belonging to his Majesty's enemies, shall from henceforth be subject to the same restrictions in point of trade and navigation as if the same were actually blockaded by his Majesty's naval forces in the most strict and rigorous manner." Further "all trade in articles which are of the produce or manufacture of the said countries or colonies shall be deemed and condemned to be unlawful, and every vessel trading from or to the said countries or colonies, together with all goods or merchandise on board, and all articles of the produce or manufacture of the said countries or colonies, shall be captured and condemned as prize to the captors." This is obviously the direct and complete reply to the Berlin decree, and though the scope of the English prohibition is the more vast and comprehensive in proportion to the magnitude and number of her enemies, yet this difference was by no means out of proportion to the differing naval power of the two countries. The French men-of-war were closely confined to their harbours, so that the blockade of the British islands was purely verbal. England, on the other hand, though of course unable to enforce a blockade on the scale of the order, had such an overwhelming naval force at sea as to make the prohibited trade extremely difficult and dangerous.

To the sweeping prohibitions of its main clause, the order of 11th November made two important exceptions in favour of *bona fide* neutrals: (1) they might trade to or from the colonies of hostile powers provided their port of departure or destination was in their own country or in a British colony: (2) they might clear out from some British port, or from Gibraltar or Malta, or from the port of an allied state, to any hostile port, or back from such port to a British or allied port, so long as the hostile port were not actually blockaded by the fleet. In these exceptions, and especially in the second, lies the subtlety of the English policy of retaliation. Napoleon had prohibited the exportation of goods from the British Islands; the English government replied that France and her allies should not receive any goods whatever except from the British islands, and no goods were to leave France unless in the first place they went to Britain. Thus

not only was France to be weakened and humiliated, but all her imports and exports were to pay toll to the enemy, who would use the wealth thus obtained in strengthening her own forces and in subsidising the continental enemies of France. Napoleon was not slow to reply to a measure which was as insulting as it was damaging to his subjects and allies. On 17th December 1807 the Milan decree declared that every ship which suffered the search of an English vessel, or submitted to a voyage to England, or paid any tax to the English government, was by that act denationalised and deprived of the guarantee of her flag. Any ship, whatever its nationality or its cargo, was declared to be lawful prize if it was on its way to or from Britain, British colonies, or places occupied by British troops.

By these measures the two belligerents stood committed to a struggle for life or death, and also to a policy which imposed greater loss and restrictions upon neutral powers than the latter had undergone in any previous war. For Europe this was a small matter, as Napoleon would not allow any neutrals within reach of his military forces. The United States were the chief sufferers; and they hastened to retaliate by closing their market to both the belligerent powers, and by depriving both of the benefit of American goods and carriers. An act of embargo (22nd December 1807) forbade American vessels to leave their ports except for another port in their own country. When this was repealed on 1st March 1809, it was succeeded by a non-intercourse act which prohibited all trade with Great Britain, France, and their respective colonies.

The policy and the morality both of the French decrees and of the English orders were hotly debated at the time, and have been a subject of much subsequent discussion. As regards morals, the measures were essentially military in character, and can be justified only on the grounds of advantage or necessity. From the point of view of policy, there can be little doubt that Napoleon's conduct was ill-considered and reckless, and the result justified England in imposing temporary hardship on herself, and in incurring the hostility of neutral states, in order to secure an ultimate victory. France, absolutely unable to defend her own shipping, was really dependent for important supplies upon neutral carriers, and ought to have done all in her power to aid and encourage them. Moreover the hardships imposed upon Europe by the exclusion of necessaries, or by the enormous increase of their price, raised a spirit of resistance to French domination, as an intolerable burden, which even Napoleon could not quell. The necessity of forcing reluctant subjects and allies to carry out measures which he deemed necessary for the destruction of his inveterate opponent compelled him to undertake those enterprises in the Peninsula and in Russia which first sapped and then overthrew his power.

One of the most curious features of the great struggle, which began in 1807 and practically ended in 1812, was that neither state could afford strictly to enforce its own decrees. England was determined to force its manufactures upon Europe in spite of Napoleon, and was aided in doing this by the reluctance of the northern states to obey the orders received from Paris. To facilitate the vast smuggling trade which went on on the coasts of the Baltic and North Sea, England resorted to a system of licenses by which merchants were allowed to carry on trade prohibited by the orders without running the risk of capture by English cruisers. From 2006 in 1807 these licenses increased to over 15,000 in 1809 and over 18,000 in 1810. Napoleon, on his side, found it impossible to dispense with the supplies which his decrees prohibited, and large sums were made by the French government by selling licenses. During the war with Austria in 1809 the evasion of the continental system was so general that its results were mainly seen in the height of prices and the heavy charges for marine insurance. England was so much the gainer by this relaxation that she endeavoured to conciliate the United States by a third order in council (26th April 1809), which narrowed the general blockade ordered in November 1807 to the coasts of Holland, France, and the Italian kingdom of Napoleon.

After his victory at Wagram (6th July 1809), and the conclusion of peace with Austria, Napoleon returned to France determined to draw tighter than ever the restrictions which the recent war had allowed to slacken. If he was powerless at sea, he was absolute on land, and instead of sending his veteran troops to Spain, where they might have ended the war, he employed them as a gigantic coast-guard along the northern and western coasts of Europe. As Holland had proved recalcitrant under his brother Louis, the latter was deposed and his kingdom annexed to the French empire. Other annexations, including the duchy of Oldenburg, followed, until the cordon of troops was complete from France to Russia. When all preparations were made, Napoleon issued a decree of Fontainebleau (19th October 1810), by which all English merchandise in the countries dominated by France was to be taken and burnt. This edict was ruthlessly carried out by the French soldiery.

Now for the first time England felt the full strain of the continental system. Licenses became useless when the exported goods were liable to prompt seizure and destruction; and their number fell from 18,000 in 1810 to 7500 in 1811. It was calculated that "60,000 tons of coffee lay in the London warehouses, unsaleable at sixpence the pound, while the price on

the continent was from four to five shillings, and in some places even seven shillings." The closure of the American market and a series of bad seasons made matters worse, and the general depression resulted in the bankruptcy of many firms. The orders in council, which had been popular at first, were now objects of general detestation. The opposition denounced them in parliament, the great towns petitioned for their repeal, and the United States threatened war. The government could hardly hold out for long against the general clamour. Fortunately the strain was relaxed at the moment when it seemed to have reached the stage of cracking. The sufferings of France had been even greater than those of England, and she had far less capacity of endurance. The resources of credit taxation and conscription were alike exhausted by the demands which the emperor had made upon them. At this moment the chief French ally found it necessary to make a change of front. Russia was peculiarly dependent upon the English market for its produce, and Alexander I. refused to bring material ruin on his subjects as well as to endure the personal slights put upon him by Napoleon. In December 1810 he struck the first blow at the agreement of Tilsit by allowing neutrals to import to Russia a number of articles of British manufacture. In 1811 Russia abandoned the French system altogether, and entered into negotiations with England and Sweden. Napoleon had no alternative but to acknowledge defeat or to compel submission to his will. He chose the latter alternative, and in 1812 he started on that eastern campaign which led directly to his downfall. In the same year Wellington began the brilliant series of aggressive campaigns which ended in the expulsion of the French from the Peninsula. The warfare against commerce had ended in the defeat of France, and the orders in council had done their work. On 23rd June 1812 the orders of 1807 and 1809 were formally repealed. Unfortunately the repeal came too late to avoid a rupture with the United States, which had declared war against England on 18th June.

[See articles on CONTINENTAL SYSTEM; LICENSES (Continental War), and authorities there referred to. For fullest and best account of the warfare against commerce see Mahan, *The influence of Sea Power upon the French Revolution and Empire* (1892), vol. ii. chs. 17 and 18. It is noteworthy that Captain Mahan, though an American, approves on the whole of the policy of the orders in council.] R. L.

ÖRE. By the provisions of the Scandinavian monetary convention of 1872 the standard of value in Sweden, Norway, and Denmark, the CROWN (*q.v.*), value 1s. 1·215d., is divided into 100 öre.

Token silver coins of fifty, twenty-five, and ten öre are in circulation. F. E. A.

ORESME, NICHOLAS (c. 1320-1382), the author of a treatise on the currency, was one of the most distinguished of the French scholars of the 14th century. In 1356 he became grand master of the College of Navarre at Paris; in 1361 he was elected dean of the church of Rouen; and in 1377 he was appointed Bishop of Lisieux. Without deserving a place in the line of great schoolmen, he was a man of interests as wide as the science of the time, and wrote upon many subjects with facility and force. In 1363 he preached before pope Urban V. at Avignon a vigorous sermon, on the evils in the church, which was in great repute towards the end of the middle ages, and was several times reprinted during the reformation. In 1370 he translated the *Ethics* of Aristotle from Latin into French at the request of Charles V., and was appointed in recompense one of the royal chaplains; and in 1371, at the same prompting, he translated the *Politics* and *Economics*. One at least of his theological works enjoyed a high reputation in the schools of Paris; and his numerous writings on mathematics deserve recognition in the history of that science. The date of the composition of his *Tractatus de Origine, Natura, Jure, et Mutationibus Monetarum* is unknown, but it was probably toward the middle or end of the reign of John II. (1350-1364); the translation into French, which was made by Oresme himself, appears from internal evidence to have been made after 1356.

[The data for the life of Oresme have been carefully gathered by F. Meunier, *Essai sur la vie et les ouvrages de Nicole Oresme* (Paris, 1857), where will be found a list both of his undoubted and dubious works with some illustrative excerpts. Meunier shows that there is no evidence for the assertion, in itself difficult to reconcile with chronology, that Oresme was the preceptor of Charles V. of France. For his mathematical writings, see M. Curtze, *Die math. Schriften des Nicolaus Oresmius* (Berlin, 1870).

His *Tractatus de Origine, etc., Monetarum* occupies some thirty octavo pages. It is composed of twenty-six brief chapters and a prologue. In the prologue he states that some are of opinion that the prince has a right to change the currency at pleasure, and make profit thereby. His intention, accordingly, is to set down what seems to him most necessary to be said *according to the philosophy of Aristotle;* and his hope is to bring about a common agreement. He begins by explaining the invention of money (ch. i.); the use for that purpose of the precious metals (ch. ii.); the use of more than one metal and of alloy for the smaller values (ch. iii.); and the necessity for a stamp (ch. iv.). Since money is instituted for the good of the community, it ought to be coined by "a public person"; and as the prince is "a person more public" than any other individual, he alone ought to undertake the work (ch. v.). This, however, does not make the prince "the lord or proprietor of the currency" (ch. vi.).

The expense of coinage is best met by a proper seigniorage (ch. vii.). The discussion of the main theme then opens with the general proposition that laws or customs affecting the community, including therein the currency, are never to be changed without evident necessity; and this is especially the case with money, on account of the common practice of fixed rents, etc. (ch. viii.). An alteration of the stamp may be sometimes desirable (ch. ix.), and also of the ratio of exchange between the metals, when any notable change takes place in their relative value as commodities ("Verumtamen ista proportio debet sequi naturalem habitudinem auri ad argentum in pretiositate": ch. x.). A change in the denomination of coins is only justified on such exceedingly rare occasions as not to be worth considering (ch. xi.). A change in the weight without a change of denomination is absolutely wrong and fraudulent (ch. xii.); and the same is true of a debasement of the material (c. xiii.); in both these ways the prince unduly draws to himself the substance of his people. The gain to the prince from the alteration of the currency is unjust (ch. xv.), unnatural (ch. xvi.), worse than usury (ch. xvii.), and such evils are of their very nature intolerable (ch. xviii.). Debasement of the currency involves much dishonourable embarrassment to the prince (ch. xix.); impoverishes the subjects, leads to the withdrawal of the precious metals from the country, and disturbs trade (ch. xx.); it benefits chiefly those who follow base occupations, such as money-dealers; and in divers ways it demoralises the people (ch. xxi.). It might seem that as the currency belongs to the community, the community has a right to raise money by an alteration of the currency, especially as such a method satisfied "quasi omnes bonas conditiones requisitas in aliqua tallia" (which are much the same as Adam Smith's canons of taxation). But unless the need of money is very great and the sum raised is to be expended in a far country, so many evils will follow therefrom that to do so will be an abuse of power (ch. xxii.). The prince cannot plead necessity or the grant of the community; the necessity of the community itself should decide, and the community cannot transfer its rights (ch. xxiii. xxiv.). A tyrant cannot long endure (ch. xxv.); and to make gain from a debasement of the currency is prejudicial to the royal power itself (ch. xxvi.).

The reputation of Oresme among modern economists is chiefly due to the enthusiastic praise of W. Roscher in his paper "Un grand économiste français du xiv. siècle" in *Comptes Rendus de l'Acad. des Sc. morales et politiques* (1862). This led L. Wolowski to bring out an edition of the treatise in both its Latin and French forms, with an introduction, in 1864. Ten years later Roscher described Oresme as "the greatest economist among the scholastic writers, for two reasons: first, the truth of his views, and secondly, his freedom from pseudo-theological system and pseudo-philosophical argumentation" (*Gesch. der N. O.*, p. 25). Professor Cunningham has more recently spoken of Oresme as the earliest economic writer to explicitly adopt national wealth and national power as the very basis of his argument (*Growth of English Industry and Commerce*, i. (1890), 322), and has reprinted the *Tractatus* as an appendix to his history.

On the other hand, as early as 1863 W. Endemann (*Die nationalökonomischen Grundsätze der canonistischen Lehre*, 1863, in Hildebrand's *Jahrbücher*, i., and separate; n. 331) declared that Roscher's "discovery" only showed how ignorant economists were of the older juristic literature; that the tractate was neither a "source" for later times, nor anything wonderful for its own; and that the ideas were not at all original, but taken from Azo and Accursius and the glossators. In his *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, ii. pp. 164-189, (1883), Endemann returns to the charge, and asserts that Oresme's ideas were essentially the same as those of Aquinas and many who followed him, and that there is no reason whatever to regard him as an economic writer of the first rank.

It were unwise to attempt a final judgment until the literature of the 14th century has been more carefully examined. It seems, however, clear that Oresme's general ideas were common to the theologians, canonists, or legists of his time; it is probable also that the special feature of his argument, the insistence upon the right of the *community* to control the currency, was common to him with other representatives of the constitutionalist party in France. The currency had been again and again debased during the century; the states-general had repeatedly protested against such measures, and demanded that the currency should be restored to purity, *e.g.* in the *Grande Ordonnance* of 1357. These considerations need not, however, prevent our recognising the vigour and (on the whole) the clearness of Oresme's tractate, and the courage which was probably required for so unmistakable a declaration. It is not impossible that the treatise was itself composed during the constitutional agitation of the years 1355-1357: Oresme was then residing at Paris, where the states-general assembled; and we know that on the general subject of taxation he agreed with the constitutional party. If this be so, Oresme's place is not in the history of the theory of currency, but in the history of the theory of constitutional government.] W. J. A.

ORGANISATION OF INDUSTRY. See INDUSTRY, ORGANISATION OF.

ORTES, GIAMMARIA (1713-1790), a Venetian monk, left his cloister on the entreaties of his mother after his father's death, but remained in holy orders and was ever a strenuous defender of the clergy. It is with this purpose that he wrote his *Errori popolari intorno all' Economia nazionale*, his *Lettere sulla Religione* and his treatise *Dei Fide-commessi a famiglie e a chiese*, with the scope of upholding the existence of clerical property in mortmain.

In his *Economia Nazionale* (vols. xxi. xxii. and xxiii. of Custodi's *Scrittori classici italiani di Economia Politica*, Milan, 1802-1816) Ortes endeavours to demonstrate that as "the wealth of a nation is determined by the (previous) wants of its members, the riches of one of them

cannot increase unless at the expense of another one; the bulk of existing riches is in each nation measured by its wants, and cannot by any means whatever exceed this measure" (*Discorso Preliminare*). From this rather startling proposition, Ortes, who certainly was an original thinker, deduces the condemnation of the principles on which mercantilism was based. "Money is only a sign of wealth, and must never be considered as being wealth itself. The error of those who mistake money for wealth, proceeds from a confusion between the equivalent of a thing and the thing itself, or between two equivalents which they consider as identical things, although they are not" (ch. ix.).

In his *Riflessioni sulla Popolazione* (Venice, 1790, and vol. xxiv. of Custodi) Ortes controverts the prevailing opinion that an increase of population must necessarily increase the wealth of a nation, and maintains that "in any nation whatever the population is compelled to keep within fixed limits, which are invariably determined by the necessity of providing for its subsistence" (*Prefazione*). In his very first chapter he asserts that, if natural instincts were allowed full play, population would increase in a *geometrical* progression (doubling every 30 years), and calculates that a group of 7 persons composed of three old people, two young men and two young women of 20, would be the ancestors at the end of

150	years of	224	living persons
300	,,	7,168	,,
450	,,	229,376	,,
900	,,	7,516,192,768	,,

Sheer violence keeps down the numbers of animals within the necessary limits, but among men, "generation is limited by reason" (ch. iii.), especially by voluntary celibacy, which affords Ortes an occasion of extolling the provident discipline of the Roman Catholic church. Ortes is a harbinger of MALTHUS; first by his law of the geometrical increase of population, and secondly by the influence which he ascribes to human reason as a prudential check against over-population.

Ortes was a fervent mathematical student, and expresses himself in algebraical formulæ in his *Calcolo sopra il Valore delle Opinioni umane* (vol. xxiv. Custodi). In the same work he illustrates his meaning by curves, which, if not actually traced, are at least minutely described.

[See also Lampertico's monograph of *Giammaria Ortes e la Scienza Economica al suo tempo*, 1865. A very complete analysis of his writings in Professor Errera's *Storia dell' Econ. Pol. nella Repubblica Veneta* (1 vol. Venice, 1877, pp. 92-156), and especially for his decided views in favour of free trade, Gobbi, *La Concorrenza Estera è gli antichi Economisti Italiani* (Milan, 1884), pp. 197-202.] E. Ca.

Ortes is undoubtedly the most eminent of the Venetian economists of the last century; his genius—original and sometimes paradoxical, is often opposed to the general tendency of the ideas of his time, and though his researches are occasionally faulty in their method, he has left a deep impress on the history of economic theory. He regards economic laws as immutable, like those of nature; he maintains this in opposition to the opinion usually accepted in his time, which regarded economics only in relation to special interests. Perhaps it is this idea which leads him to distrust the action of the state, considering it not adapted to promote the wealth of a country.

While Ortes applied a mathematical method to economics, his arguments are based throughout on abstract theory, disregarding the study both of facts and of history as not appertaining to economic science. This detracts from the value of his labours. Still his works are of weight in the history of economic theory. He did not adopt the doctrines of the PHYSIOCRATS, and he also recognises the importance of division of labour, and the important place taken by production in economic theory. Contrary to the prevailing ideas of his day, Ortes upholds universal free exchange.

[See also ITALIAN SCHOOL, and Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892, pp. 188-189, 305-306, and others.] U. R.

ORTHODOX ECONOMISTS. A title sometimes applied to those writers known as the CLASSICAL ECONOMISTS (*q.v.*). This description appears preferable. Orthodox is a term suggestive of controversy, and of the existence of an ascertained norm—a frame of mind uncongenial with that calm spirit in which economic questions should be approached.

ORTIZ, JOSÉ ALONSO (second half of the 18th century), published in 1794 a Spanish translation (with notes) of Adam Smith's *Essay on the Wealth of Nations*, under the title of *Investigacion de la Naturaleza y Causas de la Riqueza de las Naciones* (Valladolid, 4 vols.). Two years later he printed an essay on paper money and public credit (*Ensayo económico sobre el sistema de la moneda papel y sobre el crédito público*, Madrid, 1796), in which, according to Colmeiro's *Bibl. de Economistas Españoles*, he follows closely the theories of Smith. E. Ca.

ORTIZ, LUIS (second half of the 16th century), accountant (*contador*) of Castile, published in 1558 a *Memorial al Rey para que no salgan dineros de estos reinos de España* (Memorial to the King to prevent the export of Money from the Kingdom). Although Ortiz is imbued with the notions of his times on the usefulness of the craft organisations and sumptuary laws, the extraction of precious metals, etc., he is praised by Don Manuel Colmeiro (*Bibl. de los Econ. Españ.*) for his temperate views, rather favourable to protection than to absolute prohibition, and for his practical insight into the causes of the Spanish decay during this period. E. Ca.

OSCAR I. (1799-1859), king of Sweden, a son of Bernadotte, endeavoured to bring the system of criminal law of his country into accordance with modern ideas.

With this object he wrote, on the punishment of criminals, a book published in German under the title of *Ueber Strafe und Strafanstalten.*

[*Dictionnaire de l'Économie Politique*, Paris, 1864.]

OUNCE (Coin). The money of account of Morocco is the ounce.

The following is a list of the coins in circulation in that country:

Denomination.	Weight.	Fineness.	Value at 5s. 6d. per ounce.
Silver—Ten ounces	44·935	900	5s. 0d.
Five ounces	22·467	835	2s. 4d.
Two-and-half ounces	11·234	835	1s. 2d.
Ounce	4·493	835	5½d.
Half-ounce	2·247	835	2¾d.

F. E. A.

OUT-DOOR RELIEF. See Poor Law.

OUTLAW. If a person formally charged with an offence by an indictment is not in custody and cannot be found, he may be outlawed, *i.e.* put out of the protection of the law. The practical results are that he becomes incapable of taking the benefit of the law, and his property is forfeited to the crown. In England outlawry was abolished in civil cases by 42 & 43 Vict. c. 59, and has fallen into disuse in criminal cases, but in Scotland the absence of the prisoner on the day on which he is summoned to appear and stand his trial is always followed by sentence of outlawry.

[Stephen's *Commentaries*, bk. vi. c. xv. As regards outlawry in Scotland, see Bell's *Digest of the Law of Scotland*, Edinburgh, 1890.] J. E. C. M.

OUVRARD, G. J. (1770-1846), a Napoleon in the field of finance, started his fortune in 1789 by anticipating the demand for paper that would follow the enactment of the freedom of the press. He further amassed great wealth by contracts for provisioning the French armies, and on one occasion we find him making a treaty with the king of Spain as though a sovereign power. He quarrelled successively with the government of Napoleon and that of the Restoration, and was imprisoned at least four times. Neither Napoleon, however, nor the Restoration government could dispense with his help. He wrote in prison three volumes of memoirs, *Mémoires de G. J. Ouvrard sur sa vie et ses diverses opérations financières*, Paris, 1827, 8vo. He was a severe critic of Napoleon's system of leaving to the invaded country the finding food for his armies, and offered an elaborate plan of his own before the Russian campaign. In addition to these memoirs, he was the author of various financial pamphlets. He severely criticised Napoleon's neglect of credit, and was a fervent believer in the expediency of national debts, when safeguarded by sinking funds.

[See his memoirs as above, and *Dictionnaire de l'économie politique*, Paris, 1858.] H. E. E.

OVER-PRODUCTION has been supposed to exist both with respect to consumable commodities and capital. But "the theory of general over-production is an absurdity" (J. S. Mill), in the obvious sense which would justify the recommendation to increase unproductive consumption or to diminish saving.

There are, however, some phenomena which partially resemble the description which is given of over-production. For instance, in a commercial crisis, when there is a deficiency of ready money, there seems to be a plethora of goods; as J. S. Mill has pointed out (Essay 2, *Some Unsettled Questions*). A similar appearance, as he observed, may be produced by a derangement of currency; and it may be added by an appreciation of money consequent upon a great increase in production. Those who suffer from having to meet fixed charges with shrinking incomes are apt to complain of over-production. In general, improvement in production, when accompanied with "sudden changes in the channels of trade" (Ricardo), causes loss to some classes of producers. Workmen may be displaced by machinery (Ricardo, *Pol. Econ.*, ch. xxxi., Mill, *Pol. Econ.*, I. ch. vi. § 2); the native workman by the foreigner (Sidgwick, *Pol. Econ.*, III. ch. v. § 4). These phenomena, if they occurred on a large scale, might present the appearance of general over-production.

The impossibility of a "general glut" has been demonstrated by almost all the authoritative writers of this century; with particular clearness by J. Mill, J. B. Say, and J. S. Mill. On the other side are the weighty names of Malthus, Chalmers, and Sismondi; followed by a crowd of inferior writers. Some edification is no doubt to be derived from examining these writings, and in Mill's phrase (Essays, *loc. cit.*), "seeing that no scattered particles of important truth are buried and lost in the ruins of exploded error."

[J. Mill, *Elements*, ch. iv. § iii. (1868); see also *Commerce defended* (1808).—J. B. Say, *Traité* (des débouchés, i. ch. xv.).—*Revue encyclopédique*, July 1824 (reply to Sismondi), correspondence with Malthus.—J. S. Mill, *Essays on Unsettled Questions*, Essay 2; and *Pol. Econ.*, bk. iii. ch. xiv.—Ricardo, *Pol. Econ.*, ch. xxi. See also *Letters to Malthus*, edited by J. Bonar ("how their consuming without reproducing can be beneficial to a country, in any possible state of it, I confess I cannot discover").

J. R. M'Culloch, *Pol. Econ.*, pt. i. ch. 7.—Malthus, *Pol. Econ.*, 1st ed. ch. vii., 2nd ed. bk.

ii., *Definitions*, p. 56.—See also Bonar's *Malthus and his work*, bk. ii., end of ch. ii. and ch. iii.—Chalmers on *Political Economy in connection with the Moral State*, ch. v. *et passim*.—Sismondi, *Nouveaux principes d'économie politique*, 2nd ed. 1827, bk. iv. ch. iv., bk. vii. ch. vii.; and, at the end, *Éclaircissements*, in which the first article (republished from the *Annales de Législation*, 1820) is a reply to an article in the *Edinburgh Review* by M'Culloch (1819, vol. 32, p. 470); the second article (republished from the *Revue Encyclopédique* for May 1824) gives a report of an oral discussion between Sismondi and Ricardo; the third is a rejoinder to J. B. Say's article in the *Revue Encyclopédique* for June 1824. *Études sur l'économie politique*, 1827, Essay 1, "Balance des consommations avec les productions."—Uriel H. Crocker, *Excessive saving a cause of commercial distress; being a series of assaults upon accepted principles of Political Economy*, 1884.—*The Cause of Hard Times*, 1895.—J. A. Hobson, *Contemp. Rev.*, March and May 1895.—Robert Scott Moffat, *The economy of Consumption: an omitted chapter in Political Economy*.—A. F. Mummery and J. A. Hobson, *The Physiology of Industry: being an exposure of certain Fallacies in existing Theories of Economics*, 1889.]

F. Y. E.

OVERSEERS (OF THE POOR). A parochial office created in 1601 by the poor law of Elizabeth (43 Eliz. c. 2). Under that act the parish was made the area for poor relief, and the overseers of the poor were to act along with the church-wardens in the administration. They were to be from two to four in number, and to be appointed by the justices of the peace. Later acts gave power to appoint a single overseer in small places. Where there were no church-wardens the overseers acted by themselves. They were to be good and substantial householders. Women were eligible. If there was no inhabitant fit for the office, an inhabitant of a neighbouring parish might be appointed with his consent and at a salary. Vestries had power to elect a paid assistant overseer. So long as the administration of poor relief was parochial, the office of overseer was highly important. Since the passing of the new poor law of 1834 the overseers have little to do beyond levying the poor rate and making out the lists of persons liable to serve on juries or entitled to the parliamentary or municipal franchise. For the changes affecting overseers in rural parishes made by the Local Government Act 1894, see PARISH.

[See *Report* of Poor-Law Commission, 1834.—Eden, *History of the Poor Law*.—Wright and Hobhouse, *Local Government and Taxation*.]

F. C. M.

OVERSTONE, LORD. See LOYD, S. J.

OVERT-MARKET. See MARKET OVERT.

OWEN, ROBERT (1771-1858), was born at Newton, Montgomeryshire. His father was saddler, ironmonger, and post-master. Between 1781 and 1790 he was assistant to an old-fashioned Stamford ex-pedlar and linen-draper, M'Guffog; then to Messrs. Flint and Palmer of Ludgate Hill, shopkeepers of the new school, who often worked their employees from 8 A.M. to 2 A.M. Next we find him in Manchester earning £40 a year, at Satterfield's; then setting up for himself without capital, without knowledge of machinery, with an equally inexperienced and indigent partner, in the business of making spinning mules. In 1790 he became manager to Drinkwater, one of the earliest cotton-mill owners at Manchester, with £300 a year, a prospect of partnership, and 500 men under him. In this capacity, he was the first person to spin North American cotton on rollers (1791). In 1794 or 1795 he threw up Drinkwater's employment, and started the Chorlton cotton twist factory. While on a commercial visit to Glasgow in connection with this business, he met Miss Dale, daughter of Dr. Dale, proprietor of New Lanark. She told him that New Lanark was for sale; he went to her father, and bought it at £60,000 for himself and his partners (1797). In the same year he married Miss Dale. It was not until 1st January 1800 that he "entered on the government" (that was his phrase) of New Lanark. The description of New Lanark during Mr. Dale's régime (1784-1800) is derived from Robert Owen's autobiography (1857), his *New View of Society* (bk. i. ii., 1813), and Dr. Macnab, who, in 1819, examined and confirmed Robert Owen's statements in his report to the Duke of Kent. This description was subjected to the most searching criticism at the time by streams of visitors, including the future Emperor Nicholas, Lord Stowell, and others; and was never doubted until Mr. Packard, in 1866, published in his life of Owen an anonymous letter saying that, in 1796, the children were never overworked, that there was no crime and no punishment.

Robert Owen's and Macnab's accounts are as follows:—In 1784, Dale set up one spinning-mill near the Falls of the Clyde. In 1786 work began. He could not get any one to come and work; so he imported 500 workhouse or charity children, whom he fed, clothed, and educated. He took them at six or seven years of age, and worked them from 6 A.M. to 7 P.M.; so that education (say for half-an-hour), began after 7 P.M. Many children, after seven or eight years of apprenticeship, ran away. Further, he got some grown-up people together and built a village of one-roomed cottages with dunghills in front of each (see *Rob. Owen, by a Former Teacher*, 1839). These grown-up people turned out to be thieves, drunkards, and criminals of every sort, as respectable people would not take to manufacture. In 1797 there were four mills at work, and about 700 children and 1000 adults employed; and Mr. Dale, who presided over a bank at Glasgow, ever forty

chapels, and over cotton-manufactures all over Scotland, used to spend a few hours every three months, but no more, in New Lanark.

The plan upon which Owen worked was twofold:

First, as to the children. He took no more children from workhouses, and allowed no child under ten to work. He established a normal working-day for children, and adults, of ten-and-a-half hours exclusive, twelve hours inclusive of meals (Macnab, 111). His method of education was borrowed from Bell, whose pamphlet on education was published in 1797, and Lancaster, whose schools were started in 1798, each of whom he had assisted with £500 and £1000 respectively. But he borrowed their method with improvements. Both Lancaster and Bell tried, like Owen, to make instruction mutual and recreative. Owen went further, and abolished rewards and punishments, and his teachers taught their pupils by precept and example "to make one another happy." All taught from objects and observation. Owen, however, although he kept at his own expense a clergyman on the establishment, and allowed Bible reading and Sunday schools, excluded theological instruction from the compulsory curriculum. Drill was instituted for boys, domestic economy for girls, singing and dancing for boys and girls. Further, he extended instruction to infants of two years, then at their mothers' request to infants of one year of age—this project (1809) was only completed in 1816; and these, the first infant schools in the united kingdom, were the models of the first English infant schools set up by Lord Brougham and others in 1819 (Hansard, third series, vol. xxvii. p. 1309; *New Moral World*, vol. i. p. 11). Owen believed they were the first in Europe. But Oberlin started schools for infants of two or three years old at Ban de la Roche, apparently at the end of last century (*Memoirs of Oberlin*, p. 87). Owen continued education up till twelve years of age. The expense of education was 3s. per annum per child, paid by the parents, and £700 per annum paid by the employer (R. D. Owen's *Education at New Lanark*, 1824).

Secondly, Owen declared that healthy surroundings were as necessary to the character of adults as to the character of children. He wrote: "In pity to suffering humanity either keep the poor in the state of the most abject ignorance, or at once determine to form them into rational beings, into useful and effective members of the state." Institutions must be adapted to perfect the manufacturing community as a whole, not merely the immature portion of it. First, in order to extirpate theft, he put before each worker "a silent monitor"—a small patch of coloured wood symbolising the black, shady, or white character of the worker; *e.g.* if black, it meant that the worker had committed theft which Owen by some system of his own had discovered. A register of character was kept. Then, night watchmen paraded the streets to take down the names of drunkards; three bad cases of drunkenness incurring dismissal (*R. D. Owen*). Drink-shops were gradually abolished, and in 1819 had long been extinct. Again,. an elected committee, nicknamed by the housewives "bug-hunters," inspected domestic cleanliness once a week. Then illicit intercourse was fined; fines being paid to "the support fund," and not more than twenty-eight illegitimate children were born there in nine years (Macnab's *Report*, p. 110). The support fund for sick and old, and those injured by accident, was subscribed to by all the workmen, who had to set apart $\frac{1}{60}$th of their wages—although their wages were considered by the Leeds committee of 1819 low, 9s. 11d. a week for men, 6s. a week for women. Voluntary thrift was also encouraged in two ways: special residences were set apart for those who laid by money; and a savings bank started, which in August 1819 had £3193 deposits, the population being 2481 in number. There was also a common store. Owen bought wholesale and resold at moderate profits to his workpeople, thereby underselling the former shopmen by 20 or 25 per cent, and substituting good for bad goods. This method killed the dram-shops and every other shop in the place. Further, in 1812 (see *Statement*) he projected a common kitchen "in order to save his men some £4000 a year" wasted on separate fires, cooking, etc. The kitchen dropped out of sight, and was not quite ready on 26th March 1819 (see Dr. Griscom's *Travels*, ii. 384). The effect of these arrangements was that none of the workmen were convicted of crime between 1803 (Hansard, 41, 1203) or 1804 (Macnab) and 1819. Nor according to the *Former Teacher* did Owen dismiss wrong-doers or opponents. R. D. Owen's statement as to drunkards being dismissed indicates an exception to this rule.

But these arrangements could not be carried out except in a building which should focus and be set apart for the common needs of every-day life. The projection of this "New Institute for the Formation of Character" in 1809 had frightened his old partners away, and created such hostility in his new partners that in 1813 Owen went to London to find new partners, published the first two essays of his *New View of Society* (all four essays were at first sent to every government, religious minister, etc., in 1814, and were only issued to the general public in 1816), became acquainted with the leading men of the day, and finally returned to buy in New Lanark, at a cost of £114,000, for himself, BENTHAM, Walker, J. Foster, W. Allen, J. Fox, and Michael Gibbs. The name of the institute embodied what Hazlitt called Owen's "fixed idea"—the idea which first struck him when

on his Highland tour in 1802—that "circumstances" form character. Buying cheap and selling dear, are "circumstances" which deteriorate character; they must be counteracted by some "circumstance" which brings peace, unity, and intelligence. Ties between master and man were loosened by factory labour; some new bond must be forged. The factory system was necessary, because "it is the interest of society to ensure the creation of riches with the maximum of comfort to the producer" (*Address to Powers at Aachen*, 1818), and because it was too late to go back; but it had evils, and one evil was that labour was "depreciated" by excessive competition between labourer and labourer, and, as he afterwards wrote, machinery and labourers; this evil must be met by tackling the question "how the excess of riches may be generally distributed throughout society advantageously for it" (*ib.*); and by pushing forward institutions able to raise and reunite those whom the new productive mechanism had sundered and coarsened. Hence the institute with its lectures, dances, libraries, and other instruments of rational recreation. It was the complement of the factory, and answered the character-wants which factories created. Owen advocated an ideal—a word which by the way he does not use—but an ideal in which profit is an ingredient. Griscom found the partners drawing 12½ per cent profit in 1819. Owen preached philanthropy, but not that of the Duc de La Rochefoucauld, whom he saw in France making cotton 4 per cent dearer than his own; philanthropy and a minimum of 5 per cent was to him the Law and the Prophets. This was the double bait which hooked Bentham and the Quakers, Walker, Allen, and Foster. Owen's ideal was imposed on the employees from without, and did not grow from within. But it won its way with them by persuasion, not coercion. The *Teacher's* stories of Owen's forgiveness and tolerance are conclusive on this point. Again, in 1806, when cotton imports were stopped, he paid his unemployed employees full wages, and wished to go under if they went under. As it was he only lost £7000. Again, he always foresaw that a patriarchal system of industrial government must lead to industrial self-government, and that his measures introduced "a more just equality of our race," and therefore, he said, the Duke of Kent stuck to him till the last, and men like Lord Lauderdale fell away from him. In spite of this, he never took any step to substitute the delegates for the patron at New Lanark. But then, he would have answered, "New Lanark is but a half-way house, a compromise, a second best." He had other schemes brewing. The following are two notices of the condition of New Lanark after 1828, when the opposition of his Quaker partners to his religious views forced him to retire from the firm; (1) from the *Glasgow Free Press* cited in the *Crisis*, iii. 29, which alleged that the "ornamental parts" of education had been dropped, but that dancing and singing were still taught (1833). (2) From R. Owen's "Address to Infant School Societies" in 1830, which praised the school for its elder children, but alleged that the rational infant school was no more. New Lanark seemed to be forgotten, except as a school for children.

R. Owen's further schemes may be considered under two heads:

(1) First came the tentative state socialism defined by the *New View*. Abolish state lotteries; allow licenses to sell drink to fall in without being renewed; set up national education under a department which will soon be of primary importance in the state, because that state is best governed whose members are best educated. Collect labour statistics, including the price of labour and the number of the unemployed, and keep some useful work on hand (*e.g.* on roads and canals), as a reserve for the unemployed; who if employed on these works should receive less than the market rate of wages. He was the earliest advocate, in January 1815, of the original Factory Bill, introduced by the first Sir R. Peel later on in that year. His pamphlet on the bill (1815) claims the entire credit of it. Both pamphlet and bill advocate the New Lanark day of ten-and-a-half hours exclusive, twelve hours inclusive, work, and the prohibition of children-workers under ten. The bill, not the pamphlet, limits the normal working day to young persons under eighteen, the pamphlet adding that this would practically involve all the workers in its scope; the pamphlet, not the bill, prescribes an educational test as the condition precedent of child-work, also half-time for children between ten and twelve years of age, in order that they might continue their education at their employers' expense. Owen travelled all over England to collect evidence against the white slavery, as he called it, and attended nearly every meeting of the committee which sat, as he says, for two years to inquire whether it was unhealthy for children of six and upwards to work fourteen or fifteen hours a day in stifling rooms. The subsequent limitation of the act (1819) to textile industries attests the opposition which the bill evoked, and the crucial character of Owen's evidence. The bill was brandmarked "New Lanark," and the Lanark workmen described it as a measure to extend their privileges to their fellow-workers (see their address to Owen, 7th May 1818); but whether Owen drew the bill and gave it to Sir R. Peel, as he asserts, may be doubted.

(2) But secondly, the views in the *New View* were described as a first dose, which should prepare for a second and stronger dose. This last was contained in his report to Archbishop Sutton's Committee on Distress, which sat in the London Tavern during 1816, and was referred by them to Sturges Bourne's poor-law committee, and published 1817. It recommends "villages of union and mutual co-operation," mainly agricultural but partly manufacturing, and containing (say) 1200 people. The odd plan of a parallelogram within which the villagers were to live

recalls BELLERS' "Colledge of Industry," which PLACE unearthed for him (1817?); and still more that characteristic outcome (in 1807) of the "l'esprit rectangulaire," as REYBAUD calls it, of the then unknown FOURIER, the phalanges. The villages were to carry on collective industry and to provide out of its profits, or better still its produce for the wants of the workers and of the infirm. They were to become first self-governing, then self-sufficient, and the ultimate goal was communism. [*Autobiog.*, ii. 303. *Explanation of Causes of Distress* (1823), § III.] Common life was to lead to common profits, and he should have added, but did not add, common losses. Now, for the first time, he advocates the integration of industry, an advocacy which ripened in his Lanarkshire Report (1820), and Dublin Reports (1823), into opposition to division of labour. The *New View* appealed to "laws of nature"; now he poses as the sole experienced "economist"; in the 1820 Report he announces that he has discovered "a new science—the science of the influence of circumstances, which is the most important of all the sciences." He was in France in 1818. Macnab speaks of his views as "social" in every page of pt. 1 of his report (1819); but M. Reybaud's assertion that the word "socialist" was not invented to denote these views until after Owen formed "the association of all classes of all nations" (1835), has not been refuted. The socialism embodied in these reports (1817, 1820, 1823), involved three distinct proposals.

(*a*) His first proposal was that 100 "philanthropists" should each invest £1000 at 5 per cent in starting a scheme. The Duke of Kent's committee, which included RICARDO, TORRENS, and others, recommended this scheme, but only £8000 having been subscribed on 1st December 1819, it was abandoned. Again, as the result of his Lanarkshire Report, operations began at Motherwell, with a capital of £50,000 advanced by the British and Foreign Philanthropic Society, but fell through from want of funds. Here the projectors expected, Peabody-fashion, to redeem the capital as well as pay interest, and then devote their profits to starting new institutions of the same character. Vandeleur's Ralahine (1831) was the outcome of Owen's Irish visit, and broke down through the bankruptcy of Vandeleur, who was patron-landlord, long before the community of tenants bought their freedom (see CO-OPERATIVE FARMING). A more important scheme was set on foot by Abram Combe and Hamilton of Dalzell, who were disciples of Owen, at Orbiston. The founders subscribed £25,000 and opened their barrack-like establishment of some 300 members in September 1826. The members soon resolved on trying communism after the founders were paid off; but long before this, Combe died (August 1827), and the business in a few months went bankrupt and the barrack was razed. But Owen had neither scot nor lot in this scheme. He was launching his scheme at New Harmony, Pennsylvania. Owen's attention had, in 1817, been called to a communistic settlement of Shakers in the New World. In 1812 John Melish printed his travels, which contained an account of a sect of "Rappites" who settled in 1805 at Harmony. Each village of 800 or so converged to a central square, and radiated into cottages where each family lived separately, had separate gardens, poultry and hogs, but in other respects lived a common life, worked mainly on agriculture, and enjoyed the profits of their work in common. In 1824 Owen went to America, bought Harmony from the Rappites for £28,000, and advertised for settlers, 900 of whom came. On 27th April 1825 he laid down as principles for the new community that (1) each should hold his goods as part of the common stock, but might withdraw at any time; if so, his goods or their value were restored to him; (2) all should work, but as a temporary provision, Owen should value the work done by each. He left for England in June, returning on the 12th of January. On the 5th of February the New Harmonists enacted (1) that all property should be held upon trust for the community; (2) a member withdrawing was only entitled to such compensation as a general assembly awarded him for his services; (3) other than this, services, etc., were not valued. On the 8th March Owen, who had not taken part in creating the new constitution, was once more despotic manager. The February constitution had meanwhile driven out malcontents into the neighbourhood, where they formed sub-colonies. In most cases, Owen granted long leases to the sub-colonists, or advanced money at 4 per cent interest for the necessary buildings and purchases; and the land so let or sold was subject to restrictive conditions against touching profits till the debt was paid off; and after that, against the division by members of profits amongst themselves, and also against spirituous liquors. And there were colonies modelled on New Harmony,—thus Miss Frances Wright advanced money to found a colony in which black and white men were equal, and permanent marriage was abolished. The latter, but not the former principle was extended to New Harmony on 4th July 1826; a date signalised by the *N. H. Gazette* as the 51st of American and 1st of Mental Independence. In another case, a Mr. Maclure advanced money to buy land and to found schools after the manner of Pestalozzi. In all these cases some one was landlord or mortgagee, subject to options to redeem or purchase; but no redemption or purchase took place. In spring 1827 Owen declared the New Harmony experiment closed. Next Maclure's, and then (1st February 1828) Miss Wright's scheme was abandoned. A few weeks later Owen resumed the last leases of the sub-colonies on the ground that their stores competed against one another, and that their external trade was run by monopolists. After these dates, the colonists and sub-colonists left, or had to support themselves. Owen, by an expenditure of £40,000, or ⅘ths of his fortune, had helped to keep his colonists going for one or two years mainly on charity—a satirical commentary on his favourite dictum that the rich deceive themselves when they think that they support the poor, since the poor support the rich. Experiments are not communistic, because workers receive subsistence in lieu of wages; communism implies the division of produce; here, so far from there being a net produce to divide, there was a

large net loss which fell almost entirely on one man.

(*b*) Nearly ruined in America, Owen returned to England to find a second branch of his scheme of 1817, 1820, and 1823, blossoming and fruitful. He had urged artisans and others with £100 (the third class in his reports), to mass their capital and elect a committee of members to superintend its application to work. Interest was payable on capital. He believed that this scheme would soon pay hugely, and that those who took part in it "began their journey near their journey's end." Co-operative capitalistic industries scarcely existed in England before 1817. Owen now returned (August 1829) to find co-operative stores in full swing, with an admirable organ of their own in Dr. King's *Co-operator* (1st May 1828 to 1st August 1830). In setting to work to develop and federate them, he employed two characteristic methods: (i.) he tried to merge them in a wider movement, and for this purpose formed a centre of culture with lectures, a paper (*The Crisis*), annual co-operative congresses, social festivals, etc.; the Mechanics' Institute, Bromley's Bazaar (Gray's Inn Road), Burton Street Chapel, and 14 Charlotte Street, were the successive "Meccas" of the new movement. The burden of the lectures was usually economical, *e.g.* "do without the middlemen." "If work is organised, an eight hours' day will be possible" (this idea first appeared in a letter by Owen, dated 9th August 1817). "The land belongs to the people." "That country is happiest which has most producers and fewest distributors." "A graduated property-tax is the best form of taxation." "International congresses should be promoted," etc. Feargus O'Connor lectured for them once, and in May 1833 the Magna Charta of social regeneration was issued partly under Owen's auspices. In 1834 a "Grand National Consolidated Trades Union," or union of all the working classes, was started. On May day 1835 the association of all classes and all nations was formed, with paid lecturers, etc. A man attended its lectures for three months, and was examined in Owen's philosophy before being elected member. It was a forestalling of university extension tacked on to co-operative and trade unionist movements. Owen's energy as a lecturer was fabulous; and in 1836, according to the *New Moral World*, ii. 214 (its new organ), there were 100,000 members. The new phasis was wrecked partly by Owen being called to superintend a new abortive Owenite community at East Tytherley, Hants (1839 to 1844), whose members alternately elected and deposed Owen as despotic manager, and had, as usual, to be kept going by other people's capital, partly by the socialists, as they called themselves, transferring their attention from economy to marriage and religion. Owen's ideas on these subjects are clearly indicated in the report by the Home Colonisation Society of his public discussion with Brindley at Bristol (cp. *Observations on the Manufacturing Systems*, 3rd ed. app. p. 42). In 1840, the bishop of Exeter and Duke of Wellington advocated, in the House of Lords, prosecutions for blasphemy; the East Tytherley community drained their funds; and the rank and file threw mud at them, which stuck (see *e.g.*, *Socialism as it is*, by Giles, 1838; *The Human Eccaleobion or New Moral Warren*, 1842). Finally the movement worked itself out, while political chartism, free trade, and trades unionism in its modern sense came to the fore. (ii.) A second colouring was given to the co-operative movement by Owen's currency craze. The 1820 report first puts into the forefront (1) Falla of Gateshead's rediscovery of the value of spade industry in cultivating wheat as the agricultural counterpart of Arkwright's discovery; and (2) the abolition of coined money as the counterpart in distributive economics of machinery in productive economics. As to this last nostrum, it was perhaps due to a misunderstanding of Ricardo's dictum, that labour is the measure of "real value" (as to which see MILL's *Pol. Econ.* iii. xv.; M'Culloch's *Pol. Econ.* ii. i.), and to a belief in the superiority of paper to coin, which he shared with ATTWOOD and PEEL, whom he had aided in opposing the resumption of cash payments by the Bank of England in 1819. In 1830 (address to merchants) he reads these ideas into non-co-operative movements. "The wholesale and retail trade of the kingdom will soon be absorbed by a few great houses, which principle will continue to obtain until the whole business shall be taken up by *banking* bazaars." Between 16th June and 3rd September 1832 he converted his central offices into an "Equitable Bank of Exchange," which was afterwards called "The National Co-operative Trades Union and Equitable Labour Exchange," and was meant to substitute labour, which he called "intrinsic value," for money as the measure of value (see LABOUR EXCHANGE). The average hour's work "contained in commodities" was to be the unit of measurement (cp. *Autobiogr.* ii. 302; see Karl MARX). Say, a pair of boots contained "twenty hours'" work, and a pair of trousers "forty hours'" work; the cobbler would come to the bank, deposit his boots, and receive a note for twenty hours, and return next week with a second pair and receive a second note; and then if he wished, receive a pair of trousers for his two notes. For this purpose, it was essential to equalise every one's hour's work. Pending the difficulty of getting workmen to submit to this levelling, he adopted a provisional scheme which had two features: (i.) if the boot-maker who brought boots said, "I paid five shillings for materials"; the valuer wrote him down ten hours; money value of materials was the gauge of hour-credit; (ii.) bad work was counted as "containing" fewer hours than it actually took; there was a despotic valuer at headquarters. Further complications arose when (iii.) provision merchants and farmers fought shy of the system; and (iv.) 9000 hours' value was purloined from the store—a loss which Owen made good, though not legally liable.[1] After this last event (27th July 1833), Owen was superseded at headquarters; and the

[1] R. Owen's Rotunda in Gray's Inn Road: "I did not witness the introduction of the millennium, and I believe that soon after this time the Rotunda, with its happy auguries, came to an end. The excellent and truly philanthropic founder [R. Owen] spent three or four fortunes on his efforts to raise his fellow men, and his failures were in consequence of his implicit trust in human nature, and his conviction that any one may

central organisation broke up in 1834. This scheme first inflated then ruined the co-operative societies to whom it was, in the first instance, addressed. They were the principal victims. On 1st August 1829 there were 70 (King's *Co-operator*), on 1st February 1830 there were 172 (*London Co-op. Mag.*), on 30th June 1832 there were over 400 (*Crisis*, i. 59), on 27th October 1832 there were over 700 co-operative societies (*Crisis*, i. 135), between which Owen forged these paper links; three or four years later, the number had dwindled to fifteen or so. The organisation of co-operators by means of a central exchange might have been of great help; as it was, Owen's splendid follies acted as an advertisement which stimulated co-operation to an abnormal and evanescent excess.

(*c*) The third branch of the scheme (of 1817, 1820, and 1823) was that poor-law authorities should set these communities going. He based this plan on the "just and legal right" of the poor to relief which does not degrade, and to employment (cp. TURGOT'S *Droit au Travail*); and added provisions for gradually converting paupers into co-operators, and making (*c*) lead to (*b*). The government obviously seized hold of Owen's speech against the disuniting effects of churches (21st August 1817), to reject the motion made to give this scheme a trial (see speeches of Wilberforce and VANSITTART, in House of Commons, 14th December 1819). The Leeds committee rejected Owen's pauper scheme as based on *a priori* grounds, New Lanark being a manufacturing village, not an agricultural paradise of a parallelogram (1819). The Lanarkshire committee in 1820 approved of the scheme as the basis for starting a county Bridewell, then shelved it. It was not so overseas. Leigh Hunt's *Examiner* (25th April 1819), *The New Moral World*, 3rd July 1841; Mary Hennell's *Social Systems*, etc. (1844), and J. Wolber's *R. Owen* (1878), attribute the institution in 1818 of farm colonies for the unemployed in North Holland, at Frederiksoord, etc., by benevolent societies quite as much to Owen's as to General Van den Bosch's initiative; and the subsequent incorporation of "beggar colonies" of paupers in this scheme (1820-1859) was clearly due to this portion of Owen's reports (see INDUSTRIAL COLONIES).

But the reorganisation of industry was the only thing he cared about. Political reform was a matter of indifference; although power he knew would ultimately shift to the productive workers (see, *e.g.*, *Crisis*, iii. 114). He first addressed a manifesto to the working classes as such in April 1819, and urged a plea for vested interests. The short passage in the first three editions, and the Scotch and American editions of the *New View*, opposing reformers as premature, was afterwards struck out. In the *Crisis*, iii. 114, 3, he indicates the supreme importance of strikes and trades unions as compared with mere political movements. He scarcely alludes to revolution in his earlier works; but deprecates that of 1830, as expressing only individualism and competition (*Crisis*, i. p. 49, etc.), and with absurd ignorance accuses Mazzini of fostering revolutionary tendencies of the same competitive and individualistic character (*Robert Owen's Journal*, 22nd November 1851). Cold rather than hostile to any political movement, he thought industrial experiments the only social factor of paramount importance, and was as confident of success for his scheme, which he said had never been tried, in his addresses to the first two Social Science Congresses (1857 and 1858), and until he was led out of the latter, leaning on Lord Brougham, home to die, as he was at the very first outset of his career of reconstruction. "Owen," said Bentham, "begins in vapour and ends in smoke." His style is vapoury, from the time when he preached the Millennium (1st January 1816) at New Lanark, until the date of his journal entitled *A Journal Explanatory of the Means to Well Place (and Well Feed, Well Clothe, Well Lodge), Well Employ and Well Educate (Well Govern and Cordially Unite) the Populations of the World* (1850 to 1852), or until the date of his *Millennial Gazette* (1856-57). But we prefer Lord Brougham's description of his good humour and childlike simplicity (see Hansard, 14th December 1819); or Torrens's allusion to his "moral grandeur" (cited in Macnab's *New Views Examined*); or Leigh Hunt's "Yet I could at any time quit these writers, or any other, for men who in their own persons, and in a spirit at once the boldest and most loving, dared to face the most trying and awful questions of the time—the Lamennais and Robt. Owen, the Parkers, the Fosters, and Newmans."

attain perfection in any line if properly educated" (*Mrs. de Morgan's Autobiography*, p. 160).

[For illustrations of the notes in use and further details, see Art. on LABOUR EXCHANGE.]

[Robert Owen, *Autobiography* (1857-58) (ends 1823, and contains nearly all his writings down to 1822 in appendices, needs corroboration in his vivid dialogues and his dates).—A. J. Booth, *Robert Owen, the Founder of Socialism in England* (1869), critical and biographical.—W. L. Sargant, *Robert Owen and his Social Philosophy* (1860), biographical and hostile.—Jones Loyd, *The Life, Times, and Labours of Robert Owen* (1889-90), biographical and friendly.—F. A. Packard, *Life of Robert Owen* (1st ed. anon. 1866; 2nd ed. 1868), unimportant.—Robert Dale Owen (R. Owen's son), *Threading my Way: Twenty-Seven Years of Autobiography* (1873).

Criticisms of Owen are contained in *The Edinburgh Review* (1819).—Malthus, *Essay*, bk. iii. (6th ed. 1826), disapproving.—A. F. Paget, *Introduction à l'Étude de la Science Sociale* (2nd ed. 1841).—M. R. L. Reybaud, *Études sur les Réformateurs contemporains ou Socialistes modernes* (3rd ed. 1842-3).—G. J. Holyoake, *History of Co-operation in England* (1875-9).—B. Potter, *The Co-operative Movement in Great Britain* (1891), pp. 12-31; as to anticipations of Rochdale Pioneers, see pp. 61, 67.—S. and B. Webb, *History of Trade Unionism* (1894), pp. 119, 143, 151.—R. W. Cooke Taylor, *The Modern Factory System* (1891), p. 209. and G. Wallas, *Life of Place* (1898).

As to the American experiments see *The New Harmony Gazette*, ed. by R. D. Owen, Frances Wright, from 1st Oct. 1825 to 3rd Oct. 1827.—*The Co-operative Magazine* (Jan. 1826-Jan. 1830). Both are Owenite papers and therefore communistic.—J. H. Noyes, *The History of American Socialism* (1870), compiled from valuable original materials collected by A. J. Macdonald, but not thorough.

As to the "Equitable Exchange" experiments see the Owenite paper *The Crisis*, ed. by R. Owen and R. D. Owen (19th May 1832 to 27th April 1833). It appealed mainly to co-operators. Then it was named *The Crisis and National Co-operative Trades Union and Equitable Exchange Gazette* (27th April 1833 to 16th August 1834), in order to appeal equally to non-co-operative trade unionists.

As to the subsequent propaganda see the Owenite paper *The New Moral World* (1st Nov. 1834 to 13th Nov. 1841). Its full title up to 22nd Oct. 1836 is *The New Moral World conducted by R. Owen and his Disciples*, or

merely *By Disciples of R. Owen:* after which R. Owen's name is omitted. Its full title after 13th July 1838 is *The New Moral World or Gazette of the Universal Community Society of Rational Religionists enrolled under the* (Friendly Societies') *Acts.* The U. C. S. of R. R. were the paying members of the association of all classes; they could not have been enrolled under these acts, if their payments had been made for co-operative purposes.]

[See CO-OPERATION; FACTORY ACTS; SOCIALISM.]

J. D. R.

OWLERS were smugglers of wool or sheep to the continent when the exportation from England was prohibited, between the Restoration and the beginning of the 18th century, in the interest, as was supposed, of the home manufacture of cloth. The chief export station for rough wool was Romney Marsh, but much went also from Sussex, Essex, and Hampshire, and combed wool was smuggled in considerable quantities from Canterbury. French boats well armed received the wool at night, and their captains generally succeeded in eluding the armed sloops which guarded the Channel, and the severe penalties which were enacted against them, and of course enacted in vain as long as the owlers could make a net profit of 3d. on every pound of wool they exported. It is uncertain whether the term "owling" is a corruption of "wooling," or is derived from the smugglers' practice of carrying on their trade by night.

[John Smith, LL.B., *Chronicon Rusticum Commerciale, or Memoirs of Wool*, 1747, ii. 30, 206, 324, 536, 546, 561, with reference to Rapin, *Continuation*, p. 371.—*England's Interest Asserted*, 1669, and *England's Interest by Trade Asserted*, 1671, both by W. Carter.—*Abstract of Proceedings of W. Carter*, 1694.—*Excidium Angliae* and *Anglia Restaurata*, both by the Cheshire Weaver, 1727.—Bischoff's *Woollen and Worsted Manufactures.*—Dowell's *Hist. of Taxation*, iv. 433.—Rogers's *First Nine Years of the Bank of England*, p. 32.—Stephen's *Criminal Law*, iii. 228.]

E. G. P.

PACIOLI or PACIOLO, FRA LUCA (15th century), sometimes called Luca da Borgo, from his native village in Tuscany, was a Franciscan monk and distinguished mathematician.

He published at Venice in 1484 his *Summa de Arithmetica, Geometria, Proportioni e Proportionalita*, republished at Toscolano 1523. This contains much information on the commercial practice of his time, especially on partnership, sales, interest, drafts, and bills. His own leanings are towards a liberal interpretation of the doctrines of the CANON LAW (*q.v.*) on these subjects; he also explains clearly the method of book-keeping by double entry, particularly developed in Venice, thence called *alla Veneziana.*

A new edition of the part of this treatise relating to book-keeping was published by Vincenzo Gitti (*Fra Luca di Pacioli: Trattato di computi e scritture*) Turin, 1878; according to Goldschmidt, *Handbuch des Handelsrechts*, Stuttgart, 1891 (p. 246, note 36), it is very defective. See also Libri, *Histoire des sciences mathématiques en Italie*, iii. p. 133.—Jäger, *Lucas Pacioli und Simon Stevin* and *Der Traktat des Lucas Pacioli*, Stuttgart, 1878, who has in the latter followed the defective text of Vincenzo Gitti.

E. Ca.

PACKMAN. A term applied to pedlars who carry their goods in a pack (see PEDLAR).

J. E. C. M.

PACOTILLE: *Fr.* (maritime trade). Seamen's ventures, or goods captains and crews were formerly allowed by custom to take with them in small quantities, on trading voyages, to sell on their own account. They were free of freight, and the practice was tolerated to interest seamen in the expedition. In the early days of maritime discovery, before the creation of factories or depots of merchandise in distant countries and colonies, the word *pacotille* was also employed to describe cargoes of various commodities taken on voyages of circumnavigation to barter with or sell to the natives. By extension cheap common goods carried by pedlars are called *pacotille*, and the word is now used in disparagement to describe any merchandise as being of inferior quality.

T. L.

PAGANO, FRANCESCO MARIO (1748-1799). Born in Brienza (Basilicata); a distinguished jurist and a martyr for Italian liberty. At twenty he began to publish his legal works. He commenced by teaching criminal law at the university of Naples. Persecuted for the ideas expressed in his writings, and exiled, he went to Rome and taught public law at the university there. He was recalled to Naples in 1799 to take part in the provisional Neapolitan government—he arranged the plan for the constitution of the republic, and presided at the legislative council. When the Neapolitan revolution was quelled he was condemned to death and executed. Pagano's memorandum on the trade in fish is of importance to economists; he follows the ideas of the physiocrats, and demands domestic freedom of trade.

In this treatise, written to convince the people of the advantage of continuing the abolition of the excise on fish, which some wished to reenforce, Pagano observes that the price of goods is naturally determined by their quantity, and the demand for them, and that nature—through freedom of trade, not law—must fix the price. Price, established by law, may be wrong, and may damage both buyers and sellers. He would also remove the monopoly of sale granted only to a few, and would allow the fishermen themselves to sell—this right to be accorded to others as well as to fishermen; all crafts to thrive in freedom. Thus Pagano desired the abolition of all the corporations of arts and crafts, and of all obstacles and restrictions on the home trade.

Ragionamento sulla libertà del commercio del pesce in Napoli, Napoli, 1789.—*Saggi politici dei principii, progressi e decadenza della società*, Napoli, 1789.

[Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. ii. Milano, Hoepli, 1888.—Alberti, *Le corporazioni d' arti e mestieri e la libertà del commercio interno negli antichi economisti italiani*, Milan, Hoepli, 1888.] U. R.

PAGE, FREDERIC (1769-1834), a Berkshire country gentleman, author of *Principles of English Poor Laws Illustrated and Defended*, Bath, 1822, 2nd ed., London, 1829, 8vo, and of *Observations on the State of the Indigent Poor in Ireland*, London, 1830, 8vo. In the first, he insists that, *through the intervention of the State*, the indigent have a right to relief from the possessors of property. He advocates the extension of select vestries under the Sturges Bourne Act 1819 (see POOR LAW), and a strict discrimination in granting relief, according to character. The pamphlet is chiefly interesting as describing the working of the old poor-law system, under the most favourable circumstances. The later pamphlet is written to advocate a poor law for Ireland. H. E. E.

PAGET, AMÉDÉE (died about 1850), was a disciple of C. FOURIER (*q.v.*), and wrote:—

Introduction à l'étude de la science sociale (Paris, 1838 and 1841), which is considered one of the best statements of his master's doctrines. E. CA.

PAGNINI, GIOVANNI FRANCESCO (1715-1789), born at Volterra in Tuscany, held office in the financial department of the Tuscan government. He was a member of the "Società dei Georgofili" of Florence, a skilful agriculturist, and an able writer.

Well acquainted with the writers of the school of natural right and some English philosophers, he translated (published at Florence, 1751, two vols.) Locke's works: *Two Treatises of Civil Government* (1690); *Some considerations on the lowering of Interest*, etc. (1691); *Further considerations concerning raising the value of Money* (1698). He then reprinted parts of the *Manuali pratici*, which the two bankers Francesco Balducci and Giovanni da Uzzano had written in the 14th and 15th centuries *for the use of merchants*.

In his essay "On the right price of Commodities, etc.," he demonstrated that the Romans, who sought wealth only through war, adopted some provisions which were quite contrary to that principle which, as he says, "is able to procure its citizens or subjects the power of using advantageously the produce of its territory, as well as to protect and forward manufactures and facilitate the export of both manufactures and natural products; and as far as possible to prevent the introduction and consumption of foreign goods." And as the system of conquest was no longer possible, and by themselves the states could no longer provide for agriculture and war, Pagnini praised and suggested such measures of government as were not designed to procure the state abundance of foreign commodities and goods, but to save it also "the expense which the consumption of the same would imply, and to enable it also to acquire the gold and silver of other nations." In his remarks on the question of value, Pagnin did not follow the doctrines of LOCKE, whom he had translated, but those of PUFENDORF. He admitted the existence of an actual market value only, not that of a natural or normal value; and he maintained, though he gave it a special meaning of his, the theory of supply and demand as VERRI, ORTES, GIOIA, GALIANI, and others had done. He also maintained that the ideas of the Romans about the origin and functions of money were altogether opposed to the theories of modern economists, a thesis which was completely refuted by NERI and CARLI (see PAULUS JULIUS). In his work *Della Decima* (see DÉCIMES), Pagnini gives a history of that tax and the trade of the ancient Florentines, with a digression on the value of gold and silver, and on the rate of prices of commodities in the 14th and 15th centuries compared with those of the 18th century. This work is still of use in the study of prices—*Saggio sopra il giusto prezzo delle cose, la giusta valuta della moneta e sopra il commercio dei Romani*, inserted in Custodi's *Raccolta*,—*Scrittori classici d' economia politica*, modern part, t. ii., Milano, 1813.—*Della Decima*, Lisbona e Lucca, 1765, and Firenze, 1756-66. A. B.

PAGODA, HISTORY OF. A gold coin of southern India, known also by the native names of *varâha* or *hûn*, the former word indicating the "Boar" *avatâr* of Vishnu, figured on south Indian coins from the 5th century onwards, whilst *hûn* (=gold) is their later Mahommedan name. From the 16th century onwards this was the Portuguese "pardao de ouro," perhaps meaning "a quarter" of a gold rupee. The name pagoda is sometimes derived from Persian words meaning idol-temple, but more commonly from the Sk. *bhagavat* = holy, for the reason given in Fra Paolino's *Viaggio* of 1796 that the coin bore "the effigy of the goddess Bhagavadi, a name corrupted into pagoda by Europeans" (cp. Linschoten's *Travels* of 1596):—"They are Indian and Heathenish money with the picture of a Diuell upon them and therefore are called Pagodas." The effigy in question was that of Krishna, or Swâmi, whence the "swamy-pagoda" of Madras, containing about 46 grains of fine gold. Still better known was its successor, the "star-pagoda" of Madras, which was the standard coin of south India till 1818. This coin, bearing the eponymous device of a star, contained by law 42·048 grains fine, and was therefore worth about 7s. 6d. There were also Pondicherry and Porto Novo pagodas worth about 1s. less. All these three varieties were familiar at the beginning of the present century throughout the Indian currency area, which then included not only Ceylon and Mauritius, but also the Cape and St. Helena. Even in New South Wales, in 1800, the pagoda was constituted a legal tender. By proclamation of 7th January 1818 in Madras the coinage of the gold pagoda

was stopped, in view of the establishment of the silver rupee as the standard coin of the presidency. With the pagoda gold disappeared from normal circulation in India.

[*Acts and Regulations of the East India Company.* — Chalmers, *History of Currency in the British Colonies*, London, 1893.—Zay, *Histoire monétaire des Colonies Françaises*, Paris, 1892.—Thurston, *History of the Coinage of the East India Company*, Madras, 1890.—Sir H. Yule, *Hobson Jobson.*] R. C.

PAINE, THOMAS (1737-1809), born at Thetford (Norfolk), died in New York; held an appointment in the excise, on his dismissal from which in 1774 he went to Philadelphia; there, through introductions from Franklin, he made friends and obtained employment in journalism. He took an active part in the American War of Independence, and in 1777 was made secretary to the committee of foreign affairs. His *Crises* (1776-83) were acknowledged by Washington and others as having powerfully assisted the cause of separation. Leaving America in 1787, he visited Paris and London, where he published his *Rights of Man* (1791 and 1792), a reply to Burke's *Reflexions on the French Revolution*. He was thereupon elected to the convention, and subsequently to the committee for framing a new constitution. His association with the Girondins aroused the enmity of Marat and Robespierre, and he spent the greater part of 1794 in prison, where he completed his *Age of Reason*. He returned to America in 1802.

Paine's merits and defects are those of a partisan. In his economic, as in his political and religious writings, his aim is not the complete investigation of a subject with a view to the discovery of truth, but the application of foregone conclusions to particular cases; he displays, however, moral though not intellectual sincerity, along with much originality and acuteness of observation. His style is clear and vigorous, and he is a master of telling and suggestive phrases, like his definition of government as "a mode rendered necessary by the inability of moral virtue to govern the world" (*Works*, vol. i. p. 71), and his anticipation of the spirit of the Monroe doctrine—"Nothing but continental authority can regulate continental matters" (*Works*, vol. i. p. 107). The *Crises* (1776-83), the *Forester's Letters* (1776), and the *Letter to Raynal* (1782), which deal with the subject of colonial and imperial relations, are still of interest as an exposition of the disadvantages arising from too close a connexion between the mother country and a fully developed colony. But Paine was obviously mistaken in regarding political independence as the only means of freeing colonial trade from vexatious restrictions, and in denying that the colonies had derived any benefit from British protection during the wars of the 18th century. How little he realised the force of the imperial idea was shown by his attempt to prove that Canada and Halifax were possessions useless to England, and inevitably destined to amalgamation with the States (*Works*, vol. ii. pp. 123-5). The value of another group of works, treating of administration and its relation to economics, and including *Common Sense* (1776), *Prospects on the Rubicon* (1787), *The Rights of Man* (1791), *Address to the Addressers* (1792), and the *Dissertation on the First Principles of Government* (1795), is diminished by the prevalent fallacy that "every civil right grows out of a natural right" (*Works*, vol. ii. p. 307). Paine, however, is in harmony with modern thought in his refusal to identify society with government (*Works*, vol. i. p. 69), in his support of the principle, first perceived by the PHYSIOCRATS, that the prosperity of a commercial nation is regulated by the prosperity of its rivals (*Works*, vol. ii. p. 457), and in his condemnation of illicit trade (*Works*, vol. i. p. 379). He was the author of several ingenious schemes of taxation, including one for the abolition of the poor-rate (*Rights of Man*, pt. ii., 1792). In the *Dissertation on Government, the Affairs of the Bank, and Paper Money* (1786), according to Mr. Conway, he overwhelms "the whole brood of heresies—State privilege, legal tender, repudiation, retrospective laws" (*Life*, vol. i. p. 217). But, like some other advocates of "honest money," Paine is not free from the heresy of regarding abundant currency as a disadvantage (*Works*, vol. i. p. 226). Among his other works may be mentioned the *Letters* (1779), in which he argues for the "natural right" of the United States to the Newfoundland fisheries; *Public Good* (1780), dealing with the question of state sovereignty; and *Agrarian Justice* (1797), opposing the system of landed property, and containing a proposal for state compensation in money to those debarred from the possession of land.

[The references in the text are to Paine's *Works*, ed. Conway, London and New York, 1894-6; and to Conway, *Life of Thomas Paine*, London and New York, 1892. See also *Dict. of Nat. Biog.*, London, 1895, vol. xliii., article "Paine, Thomas," by Leslie Stephen.] E. R. F.

PALE (IRELAND) denoted the district within which direct English law and control existed. First used in the 15th century, it applied to the greater part of the four counties of Dublin, Louth, Meath, and Kildare. The Statute of Drogheda (1494) provided that the pale should be surrounded by a double fence and ditch to prevent marauding incursions by the Irish. The chief points in this boundary were Dundalk, Kells, Naas, and Tallaght.

[Hardiman in *Tracts on Ireland*, vol. ii. (1841), issued by the Archæological Society.—Bagwell, *Ireland under the Tudors*, vol. i. p. 123.] C. F. B.

PALEY, WILLIAM (1743-1805). Paley was senior wrangler 1763, fellow of Christ's College, Cambridge, 1766, chaplain of Bishop Law at Carlisle, 1769. After holding various livings he became archdeacon of Carlisle (1782), the title by which he is best known.

He wrote at greatest length on natural theology and the evidences of Christianity (*Horæ Paulinæ* 1790, *Evidences of Christianity*, 1794, *Natural Theology*, 1802). The two writings that bear

most on economics are the *Principles of Moral and Political Philosophy* (1785) and the tract, *Reasons for Contentment addressed to the Labouring Part of the British Public* (1793). This tract was written at a time when there was war with France together with depression of trade and general suffering, when there was much public agitation in favour of reform, with much straining of the laws against sedition, when booksellers great and small were prosecuted for selling Paine's *Rights of Man*, "that being treason in duodecimo which is innocent in quarto" (Windham). Paley tells the grumbling mob that they should not make comparisons, but do their own duty and mind their own concerns (4, 5); let them consider that the same law which protects the rich in their property protects the poor man in his, and as the poor man is the weaker he needs the protection more (5, 6). Besides, the labouring man has as much of the real pleasures and blessings of life as the rich, without the care and the temptations (7-11, cp. 14, 15). Indeed in security and certainty of provision for his family the poor is superior (11, 12). Service for wages Paley takes to be "the best way of conducting business, because all nations have adopted it" (13), and it is as equitably regulated in England as anywhere (13). "I have no propensity to envy any one, least of all the rich and great; but if I were disposed to this weakness, the subject of my envy would be a healthy young man in full possession of his strength and faculties, going forth in a morning to work for his wife and children, or bringing them home his wages at night" (18). Finally changes of condition that break up our ordinary habits of living "never can be productive of happiness," "it is not only to venture out to sea in a storm but to venture for nothing" (22). This pamphlet was meant quite seriously, and attracted some attention.

Paley seems not to have studied either HUME or Adam SMITH. In his *Moral and Political Philosophy*, he borrows his utilitarian doctrine from Abraham Tucker's *Light of Nature Pursued* (1768-78). He is on the whole a defender of things as they are, though this sometimes leads him into hazardous arguments. He defends the institution of property by urging that it increases the produce of the earth, preserves it to maturity, prevents contests about it, and "improves the conveniency of living," by allowing division of employments and encouraging art and invention (*ib.* ch. ii.). "The poorest and the worst provided, in countries where property and the consequences of property prevail, are in a better situation with respect to food, raiment, houses, and what are called the necessaries of life, than any are in places where most things remain in common" (*ib.* ch. ii.). The foundation of the right of property is not, as LOCKE said, labour, but "the law of the land," and that is founded ultimately on "the will of God" (ch. iv.). The special chapters on contracts of sale, hazard, inconsumable property, lending, and labour, ch. vi.-xiv., have little or no economic value, though ch. viii., on general consequences, has some points neatly put in the style of BASTIAT'S *Popular Sophisms*.

In the chapters on charity (pt. ii. ch. i.-v.) there are instances of arguments reaching farther than the author intended; *e.g.* "it is a mistake to suppose that the rich man maintains his servants, tradesmen, tenants, and labourers; the truth is they maintain him." "All that he does is to distribute what others produce, which is the least part of the business." One chapter (v.) on pecuniary bounty can hardly be reconciled with the *Address to Labourers;* "the dread of want" is included among the evils of poverty, and the plea that "the poor do not suffer so much as we imagine" is rejected: "the question is not how unhappy any one is, but how much more happy we can make him."

The section (bk. iii. pt. iii.) devoted to marriage is more of a sermon than an economic discourse on population. We need of course to remember that the book is not professedly economic. The subject of "population and provision" is discussed by itself in a later section, bk. vi. ch. xi.). Paley thinks that on the whole "twice the number of inhabitants will produce double the quantity of happiness." "It may and ought to be assumed in all political deliberations that a larger portion of happiness is enjoyed amongst ten persons possessing the means of healthy subsistence than can be produced by five persons under every advantage of power, affluence, and luxury." "Consequently the decay of population is the greatest evil a state can suffer, and the improvement of it the object which ought in all countries to be aimed at in preference to every other political purpose whatever." He allows "the tendency of nature, in the human species,[1] towards a continual increase of its numbers." "The two principles upon which population seems primarily to depend, the fecundity of the species and the capacity of the soil, would perhaps in all countries enable it to proceed much further than it has yet advanced." "The condition most favourable to population is that of a laborious, frugal people ministering to the demands of an opulent luxurious nation, because this situation, whilst it leaves them every advantage of luxury, exempts them from the evils which naturally accompany its admission into any country." This is the passage criticised by MALTHUS (*Essay*, iv. xiii.); Malthus quotes a passage in Paley's *Natural Theology* (ch. xxvi.) where Paley seems to modify his views. He had (in the *Mor. and Pol. Phil.*) regarded luxury as bad for the luxurious, though good for those that supplied them; "the business of one half of mankind is to set the other half at work" (vi. xi.). In the *Natural Theology* he says that "mankind will in every country breed up to a certain point of distress," a point which will be high or low according to the country. He also accepts the statements of Malthus (the author of "a late treatise upon population") in regard to geometrical increase. Malthus draws the inference that Paley must now admit luxury to be a benefit to the luxurious themselves, and the wide diffusion of luxury to be a safeguard against overpopulation, in so far as luxury raises the "point of distress" higher and produces a check on

[1] Cp. *Nat. Theol.* ch. xxvi., where the same "superfecundity" is allowed of all animal life.

population sooner. For Paley's philosophy and theology, see Leslie Stephen's *English Thought in the 18th Century*, vol. i. (1876), and Mackintosh's *Dissertation on Ethical Philosophy* (7th ed. of *Ency. Brit.*). J. B.

PALISSY, BERNARD DE (1500-1589), died a Protestant prisoner in the Bastile. Celebrated for his artistic pottery, his *figulines rustiques* as he called them, he enjoyed for a time the protection of the kings of France, after having exhausted his own slender means, and worked for sixteen years, to discover the composition of the enamels used in Italy.

Though a poor and illiterate man, he left several works remarkable for clear insight into natural and economic phenomena. In geology he was in many respects a harbinger of modern science. In his *Recepte véritable pour apprendre aux hommes à multiplier leurs trésors* (1563), he gives useful advice to agriculturists on the use of manures—their object is to return to the soil the elements which have been exhausted by the crops. "Philosophy," he affirms, should lead and direct agriculture. In his *Traité des Métaux et Alchimie*, (1580), a dialogue between "*Théorique*" and "*Practique*," he ridicules the futile researches of alchemists, who, he said, should be called "anti-philosophers"; according to the opinion of Practique: "A pestilence, a war, or a famine would be less injurious than six men who knew how to make gold in great quantity. If once their process were divulged, everybody would despise tillage, and land would remain a waste . . . Gold would become so depreciated that nobody would give bread or wine in exchange." It is curious to notice that this view, so strikingly in advance of the times, was, about a century later, again expressed by LEIBNIZ in his *Oedipus Chymicus*. Palissy's works were republished in 1880, one vol.

[Henry Morley, *Palissy the Potter*, London, 1852.] E. CA.

PALMER, J. HORSLEY (1780-1858), for fifty years one of the most eminent and esteemed of English merchants, became a director of the Bank of England in 1811, and governor for the three years 1830-1832.

Palmer gave an able explanation of the working of the system of the bank (see BANKING; BK. OF ENG.) before the committee of 1832 on the bank charter. He further stated his views in *The Causes and Consequences of the Pressure upon the Money Market, with a Statement of the Action of the Bank of England from 1st October 1833 to 27th December 1836*, London, 1837, 8vo, which called forth a reply from S. JONES LOYD (*q.v.*), *Reflections suggested, etc.*, 1837, republished in *Tracts*, 1858. Palmer defended his position in a *Reply to the Reflections, etc.*, 1837, 8vo. His views are further criticised in Tooke's *History of Prices*, vol. iii. pp. 91-114. Palmer also wrote *Reasons against the proposed Indian Joint-Stock Bank*, London, 1836, 8vo.

[*Times*, 11th February 1858.—*Annual Register*, 1858.] H. E. E.

PALMERI, NICOLO, born at Termini, Sicily (end of 18th century, died July 1837). His liberal principles prevented him from seeking public employment. He lived in obscurity, devoting his life to study.

He was an economist of the school of Adam SMITH. Besides many minor writings published in reviews and newspapers, he wrote an *Historical Résumé of Sicily*, and an essay in which he demonstrates the wretched state of Sicilian agriculture, recommending, with a courage unusual for the epoch and country in which he lived, the opening of the Sicilian ports to free trade with foreign countries as the only remedy for existing evils. Even in our times, when the Sicilian problem, far from being solved, or even appeased, has grown more acute and alarming, the remedies proposed by Palmeri are still worthy of consideration. His essay, which fell accidentally into the hands of Francesco Ferrara, induced the latter to apply himself to economics. (See *The Life and the Doctrine of Francesco Ferrara*, by A. Bertolini, Bari, 1895).

Saggio delle cause e delle angustie attuali dell' economia agraria della Sicilia, Palermo, 1826. A. B.

PALMIERI, GIUSEPPE (1721-1794). Born in Martignano, province of Lecce; of a noble Neapolitan family; was an economist, financier, and statesman. He began life as a soldier, and then became a disciple of GENOVESI; he again returned to military life, in which his career was brilliant, but at thirty-eight he finally abandoned it and devoted himself to study, agriculture, and public life. In 1738 he was charged with the reorganisation of the finance of the province of Lecce, and in 1791 was made director of the board of finance in the kingdom of Naples.

As a statesman, Palmieri tried to apply the principles of economic science to public administration; he rescued the latter from many abuses, promoted the abolition of turnpike tolls and feudal rights, and together with FILANGIERI assisted greatly in the formation of the Neapolitan customs tariff of 1788, which was a great step towards simplifying taxation and a rational organisation of the customs.

His views on commerce are of especial importance. He advocates moderate protection to commerce and agriculture; he admits the advantages of free trade applied universally—absolute freedom for commerce in the interior; but he suggests for Italy limits to the freedom of foreign trade as a defence against foreign competition, and to assist the promotion of national industries as other countries do.

He combats the doctrines of the PHYSIOCRATS, especially with respect to the importance of foreign trade, which he maintains to be a true source of wealth for the nation. He was the soul of the theoretic and practical reform of the study of economics and finance in the kingdom of Naples towards the end of the last century.

He discussed the general theory of taxation, as well as detailed questions of finance, and

originated and encouraged many interesting discussions on the errors and prejudices of existing systems and necessary financial reforms. He minutely analyses taxation, preferring, on the whole, indirect taxation. This opinion had many supporters in his day, but for variety of observation, critical acumen, largeness of ideas, and diversity of argument, Palmieri far surpasses all other writers of his time. His works gave a great impulse to the scientific life of his day, and proposed improvements into public administration by showing the baneful effects of the existing system on trade and economics.

The fundamental conception of the financial reforms suggested, and to a great extent carried out by him, consists in greatly simplifying the system of taxation combined with freedom to trade, agriculture, and traffic. Abolition of internal customs, reduction of frontier customs, particularly of those on export of goods, reorganisation of customs tariffs and reform of the crown estates, were the measures proposed by Palmieri for the improvement of the economic position and finances of the kingdom of Naples.

Palmieri wrote, *Riflessioni sulla pubblica felicità relativamente al regno di Napoli*, Napoli, 1787.—*Pensieri economici relativi al regno di Napoli*, Napoli, 1789.—*Osservazioni su varii articoli riguardanti la pubblica economia*, Napoli, 1790.—*Lettera sulla nuova tariffa doganale*, Napoli, 1790.—*Della richezza nazionale.*—Napoli, 1792.

[See on Palmieri, among others, Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd edition, Palermo, 1896.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. ii., Milan, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, 1884.] U. R.

PALMIERI, MATTEO (1405-1475). In his treatise *Della vita civile* (Florence, 1529) Palmieri deals with political economy and finance. He supports proportional and condemns progressive taxation proposed at that time in Florence, as he considers diversity of fortune is in the order of nature, and should not be altered by taxation. The basis of Palmieri's opinion is that taxation is an obligation to the state, imposed on all citizens in return for the assistance given by the state in the formation of private fortunes, and that it should be distributed among them in proportion to wealth, so that property may bear its part without changing the natural distribution of wealth. This is a very remarkable conception for those days, as it shows that even then the most important financial controversies turned on this point, and it offers a certain analogy to the modern doctrine of equality of sacrifice.

[Ricca-Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd ed., Palermo, 1896.—Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892.] U. R.

PANIC, COMMERCIAL. See CRISES.

PANNAGE. Originally this word seems to have meant simply the food, acorns, beech mast, etc., which pigs could find for themselves in a wood. Generally, however, in mediæval records, it means either the right of feeding pigs in a particular wood, or the annual rent paid for that right. Thus, the statement, that in a certain wood there is pannage for twenty pigs, means that twenty pigs could pick up a living there: A. B. has pannage for twenty pigs in such a wood, means, that A. B. has the right to turn out twenty pigs, to find a living there; while in the forest-officer's accounts the word pannage would mean the rent paid by A. B. for this right.

[Pipe Roll Society's publications, vol. iii.—Cowel's *Interpreter*, London.] A. E. S.

PAOLETTI, FERDINANDO (1717-1801), parish priest of S. Donnino at Villa Magno, near Florence, was an intelligent practical agriculturist and an excellent writer on that subject.

A follower of the PHYSIOCRATS, Paoletti published, 1769, *Pensieri sopra l' agricoltura*, part of which CUSTODI inserted in his *Raccolta* (see *Scrittori classici di economia politica*, modern part, t. xx.), and, 1772, *I veri mezzi di render felici le società*, in which, as every physiocrat in Italy as well as in France did in his time, he brought forward free-trade ideas on the corn-trade. His belief in the good effects of free-trade induced him to reproach BANDINI for his prejudice against public stores of produce (see GRENIERS D'ABONDANCE). Yet he supported, in his *Veri mezzi*, taxes on luxuries, the idea of aiding the exportation of commodities not of the first necessity such as oil, wine, etc.; and in his *Pensieri* protective duties to encourage agriculture. Cossa therefore (*Introduction*, p. 269) rightly places Paoletti among those who, though accepting the new theories of the physiocrats, could not altogether give up the old ones of the mercantilists.

Pensieri sopra l' agricoltura, Firenze, 1769, 2nd ed. 1789.—*Veri mezzi di render felici le società*, Firenze, 1772 (in *Raccolta del Custodi*). A. B.

PAOLINI, GIOVANO BATTISTA (end of 18th century). Born in Pistoja, an eclectic writer on economics, his idea is that laws cannot be fixed on absolute and universal principles, but must be subservient to conditions of time and place, so that under different circumstances any system may be advisable. In foreign commerce Paolini recommends "legitimate," not "absolute freedom"—that is, "a right to cultivate, work, transport, export, and introduce such goods as are useful to the whole country"—this freedom to be limited and regulated by laws and duties wherever the good of the country demands it. Hence in the application of such freedom it is necessary to consider the existing circumstances of the country," hence also "certain economic laws might be good for ancient but bad for modern nations."

Paolini wrote, *Della legittima libertà del com-*

mercio, Florence, 1785. (See Gobbi, *La concorrenza estera e gli antichi economisti italiani,* Milan, 1884.) U. R.

PAOLINO, a Minorite of Venice, lived in the first half of the 14th century. In the solitude of the monastery he devoted himself to study the political and economical problems of society with brilliant talent, but also with the defects common to his age and condition, namely a complete submission to the doctrines of Thomas AQUINAS (*q.v.*), and a total want of practical knowledge of men and things.

His name and work would probably not have been known had not Prof. Mussafia, an Italian philologist teaching at Vienna, published, in 1868, with notes, the *Trattato di Fra Paolino,* in which he speaks of the family and of the state, laying down rules for their moral encouragement, as the many writers *De regimine, institutione, eruditione Principum* of that time had done, among whom the poet Petrarch (1304-74), *De republica optime administranda;* Egidio Colonna (1247-1316), *De regimine Principum* (anterior to Paolino) among the politicians; and Andrea d'Isernia (1220-1316), among the jurisconsults, are worthy of being mentioned.

Trattato de regimine rectoris (1313-1315), Vienna, 1868. A. R.

PAPER BLOCKADE. A phrase used to denote a blockade maintained by an insufficient force or by no force at all. INTERNATIONAL LAW requires that a belligerent power, which claims the right of capturing all vessels attempting to run in or out of an enemy's port, shall have rendered ingress and egress dangerous by sending a ship or ships of war to cruise off the port in question, in such a position and in such numbers that they are almost certain to intercept all who approach (see BLOCKADE). This is the only kind of blockade neutral states are bound to submit to. The fourth article of the DECLARATION OF PARIS laid down that "blockades to be binding must be effective, that is to say sufficient really to prevent access to the coast of the enemy." In drawing up this rule the statesmen of the Congress of Paris of 1856 did but formulate an accepted principle. The ARMED NEUTRALITY (*q.v.*) of 1780 had declared not only that there must be evident danger in entering the blockaded port from the proximity of the blockading squadron, but also that the vessels which composed it must be stationary. In 1800 the second armed neutrality added that ships were entitled to a warning by the commander of the force which closed the port, and might not be captured unless they made an attempt to enter after having been warned. The great agreement of 1856 was silent as to these fanciful restraints upon the undoubted right of a belligerent; but gave the sanction of express consent to the just and reasonable rule which forbids a power at war to interfere with neutral trade by merely forbidding commerce with its enemy's ports. This had been done often enough in mediæval times, and was not unknown as late as the 18th century. But the great events of the close of that epoch, and the growth of a reasoned system of maritime law from the decisions of the prize courts of the leading nations of Europe and America, settled definitely that a belligerent could not enjoy the rights against neutrals given by blockade without fulfilling the obligation of maintaining his blockade by a sufficient naval force. The civilised world has accepted this principle for more than a century. The violations of it, ordered by Napoleon's Berlin and Milan decrees, and the retaliatory British Orders in Council, were justified on both sides as reprisals for the illegal violence of the enemy (see CONTINENTAL SYSTEM; ORDERS IN COUNCIL). But no attempt was made to show that they were part and parcel of ordinary international law. The statement that Great Britain upheld paper blockades up to the time of the declaration of Paris is entirely destitute of foundation (Calvo, *Droit International,* iv. 177). The slightest knowledge of the decision of Lord Stowell, our great judge of the Courts of Admiralty during the long war with Napoleon, would be sufficient to dispel this illusion. Our own country is at one with others in insisting upon the wholesome rule that belligerent ports cannot be hermetically sealed against the commerce of the world by a mere paper decree. The great economic importance, to a country situated as Great Britain is, of freedom of access—where possible—to the ports of the world, needs no comment.

[Fauchille, *Du Blocus Maritime,* Paris, 1882.—Manning, *Law of Nations,* i., edited by Amos, bk. v. ch. vi., London, 1875.—Lawrence, *Principles of International Law,* pt. iv. ch. v., Boston and London, 1895.—Case of the *Betsey* in C. Robinson's *Admiralty Reports,* i. 93.] T. J. L.

PAPER MONEY. See MONEY.

PAPER, TAXES ON, fall under two heads, those on paper as a manufactured article, and those on newspapers and advertisements. (1) The tax on paper, varying according to quality, was imposed in 1712, increased in 1714; it included a duty of 1s. a square yard, in addition to the ordinary duty, on all printed, painted, or stained paper used for hangings or other purposes. The yield in 1793 was in Great Britain £83,079, and, the tax being raised in 1794 and doubled in 1801, while the manufacture was greatly improved, by 1802 the yield had risen to £268,000 for England alone, by 1815 to £476,019 for Great Britain. The complications attending the incidence and collection of the duties, apart from the social disadvantages produced by taxes on knowledge, led in 1836 to the consolidation and simplification of the tax, which was fixed at 1½d. a pound on all sorts of paper alike, except the

stained and other paper used for hangings, which was now freed altogether. An attempt to repeal the whole tax was defeated by the Lords in 1860, but carried in 1861, at which time the yield was about £1,350,000. Many reasons combined to turn the scale against the taxes; they were so complex that it was difficult for papermakers to understand their liabilities; other manufactures into which paper enters, though supposed to be free, were virtually taxed; all other manufactures being by this time freed, it was either invidious to keep taxes on one, or else unfair to protect it; and as most of the required supply of rags, the raw material of paper, could be had in England, reciprocal duties were not needed to protect the trade against the large export duty on rags levied in France. In spite of prophecies to the contrary, the manufacture has largely increased since the repeal.

(2) A tax was first imposed on newspapers at the same time as on paper in general, half-sheets were to pay ½d., whole sheets 1d., and every advertisement 1s. Each great war saw these rates increased, and once in 1789 they were raised in time of peace. The highest point reached was 3½d. for half sheets and 4d. for whole sheets in 1797, with 3s. 6d. for every advertisement before the end of the French Revolution war. But the latter tax was reduced to 1s. 6d. in 1832, and altogether repealed in 1853; while the tax on newspapers was lowered in 1836 to 1d., provided the paper did not exceed certain limits of size, and was repealed in 1855. The newspapers of Great Britain paid, in 1749, £16,450; in 1815, £383,696; in 1831 over £552,000. After a temporary drop owing to the reduction of the duty the yield rose again, and at the time of the repeal reached £488,010, the immense impetus to publication having nearly compensated for the lowered rate. The advertisement revenue rose from £125,000 in 1815 to £181,000 in the year of the repeal of the tax.

[Dowell's *History of Taxation.* — Parnell's *Financial Reform.*—Report of Commissioners of Excise, 1835.—M'Culloch's *Dictionary of Commerce.*—Porter's *Progress of the Nation; Parliamentary Debates*, 1860, 1861.] E. G. P.

PAR. On the stock exchange, the nominal or face value of a security. With government or municipal stocks, and British railway stock, "par" is always taken at £100—with shares in companies, at the amount called up. For new issues, before the special settlement has taken place (see SETTLING DAY), it is customary to give quotations at so much "premium," or "discount" (*q.v.*), reckoned upon the amount called up to date. R. W. B.

PAR OF EXCHANGE. See MINT PAR.

PARADISI, AGOSTINO (1736-1783), occupied one of the earliest established chairs of political economy in Italy, and was in his day a well-known prose writer and poet. In 1772 Duke Francis III. appointed Paradisi to teach economics at the university of Modena, endowed by him with new statutes and branches of study. Paradisi held this chair until 1780, when the new duke, for economy's sake, reduced the pay of the professors. On this Paradisi resigned and retired to Reggio, his native place, where he died three years later, president of instruction. His unpublished *Lezioni di economia civile* were highly valued in his own day. During the last years of his teaching Paradisi put them aside to use as a text-book Condillac's *Le commerce et le gouvernement* (published in 1776), which he translated and annotated in a work that has also never been published. Copies of the manuscript of his lectures are in the libraries at Modena and Reggio-Emilia. The more important part of the work is the special treatment of the subjects of value and wages.

In Paradisi's writings the influence which the French philosophy of the 18th century exercised on his mind may be traced as well as the doctrines of the physiocrats.

Paradisi and MURATORI were precursors of the economic, financial, and administrative reforms originated and partly carried out in Modena under Duke Hercules III. (reigned 1780 to 1796).

[Cossa, *Saggio di economia politica*, Milan, 1878.—*Sulle prime cattedre di economia in Italia.* —Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.] U. R.

PARAGIUM, holding in equal portions as well in rights and privileges as in actual property (Ellis). The full scope of the word is given by Kelham, who says it "signifies equality of name, blood, or dignity; but more especially of land, in the partition of all inheritance between co-heirs; or it is when the younger brothers hold their share of the fee of the elder brother, and he [holds] of the lord and does homage and service, they contributing their shares." On folio 96 *b* of Domesday we read, xxii. *masuræ quas tenebant*, xx. *homines in paragio;* and on folio 51 *b*, Wislac and Aluric, two tenants *in capite*, are recorded as holding *in paragio.*

[Ellis, *Introd. to Domesday*, i. 241.—Kelham, *Domesday Book illustrated*, p. 290.—Pollock and Maitland, *History of English Law*, ii. pp. 261, 274, 289, treat the subject exhaustively.] R. H.

PARCENERS. When two or more persons have become entitled to an estate by descent as co-heirs, they are called, in law, coparceners or parceners. This happens by the common law chiefly in the case of females; but as the heirs of a sister deceased become coparceners with the surviving sisters, males may stand in that position.

The custom of gavelkind also led to coparcenary among male heirs. It was the only form of joint ownership in which the

ancient common law granted the power of severing estates without mutual consent. The estate in coparcenary devolving on persons by the act of the law and not by agreement, it was held that no lack of consent should prevent a change into a more convenient form of ownership. This was formerly done by a writ of partition, now abolished by 3 & 4 Will. IV. c. 27, § 36. When the partition is voluntary it must be effected by deed, when otherwise the aid of the Court of Chancery is available. Sales may now be effected under 31 & 32 Vict; c. 40, and 39 & 40 Vict. c. 17, and so the difficulties which used to arise with regard to mansions and certain commonable rights can be avoided.

Cases of coparcenary as early as A.D. 1200 may be found in F. W. Maitland's *Select Civil Pleas* (Selden Society).

[Blackstone's *Commentaries.*—J. Williams, *Law of Real Property.*—Brett, *Commentaries on present laws of Engl.*, 1891.—Pollock and Maitland, *History of English Law*, ii. pp. 272-276, 304.] R. H.

PARDESSUS, JEAN MARIE (1772-1853), a lawyer, judge at the *Cour de Cassation* (supreme court), professor of commercial law, and at various times a member of the French representative assemblies. His *Collection des Lois Maritimes antérieures au XVIIIe Siècle* (Paris, 6 vols., 1828-39) gives the original text and French translations of all maritime laws from the remotest periods, with notes and a historical introduction. The first eleven chapters (Antiquity and Middle Ages) were reprinted separately in 1847 under the title of *Us et Coutumes de la Mer* (2 vols.).

Pardessus also published *Lettres de Change*, (1807) a treatise on bills of exchange; *Servitudes* (1829) on legal liabilities of property and *Cours de Droit Commercial* (1831). E. Ca.

PARE, WILLIAM (1805-1873), son of a Birmingham cabinetmaker and upholsterer, was one of the earliest and ablest of the disciples of Robert OWEN, having been converted to his doctrines by William THOMPSON, whose *Inquiry into the principles of the distribution of Wealth*, published in 1824, he re-edited in 1850. He was corresponding secretary of the first Birmingham co-operative society, and Mr. Holyoake says of him that "he was at his death the oldest and best informed co-operator in England." He was compelled to resign the office of registrar of births, deaths, and marriages in Birmingham, in consequence of Dr. Philpotts, then Bishop of Exeter, having brought before the House of Lords the fact that he sympathised with socialist views. He became an active apostle of Owen's system; he undertook several "missionary tours" for the purpose of preaching it, and was for some time governor of the Owenite community of Harmony Hall in Hampshire.

His writings are: *The Claims of Capital and Labour: with a sketch of practical measures for their conciliation*—a paper read before the Dublin Statistical Society, 1854. The immediate occasion of this paper was the strike and lock-out at Preston in 1853-54. The measures he suggests are (1) a reform of our money laws which would abolish the use of gold, or of anything in itself valuable, as a measure of value. This seems to point to the adoption of Owen's system of Labour notes (see LABOUR EXCHANGE); (2) universal and compulsory education and industrial training from a very early age. This does not necessarily imply, but was probably in his thought connected with, an associative, as opposed to the domestic, rearing of the young; (3) an alteration in the law of partnership, giving not only limited liability (see LIABILITY, LIMITED), but a limited authority and control; (4) the formation of INDUSTRIAL COLONIES (*q.v.*) at home by funds advanced on loan by the state, as a practical recognition of the right to labour.—*Equitable Commerce, or Cost the limit of Price*, read before the British Association, 1855, the object of which was to explain and defend the labour exchanges devised by Owen and carried on in establishments founded by him in London and Birmingham.—*A Plan for the suppression of the Predatory Classes*, a paper read before the Social Science Association, 1862. The plan was that all premises serving as harbours for the criminal classes, or in any way used in complicity with them or their practices, should bear the whole burden of the taxation necessary for the detection and punishment of crime, so that the owners would be forced either to obtain honest tenants or dispose of their property to those who would.—*Co-operative Agriculture: a solution of the Land Question*, 1870, in which is given an account, founded on personal observation, of a co-operative agricultural association established in 1830 by Mr. John Scott Vandeleur, a resident Irish landlord of position, on his estate of 618 acres at Ralahine in the county of Clare (see CO-OPERATIVE FARMING). This experiment, notwithstanding the ignorance and previous turbulent disposition of the labourers, seems to have been for some time eminently successful, both economically and in its moral influences, and to have failed only in consequence of the proprietor's financial ruin and flight to America, caused by his gambling propensities. The book is mainly a narrative of facts, written in a lively and readable style, and the story told in it certainly deserves attention from all who take a practical interest in improving the condition of the agricultural population. The Ralahine system did not conform to any standard type. It might be called a modification of the *métairie* system (see MÉTAYAGE), the tenants paying to the landlord not a fixed *proportion* of the produce, but a fixed amount. Pare was one of Owen's literary executors, and, at the time of his death, was preparing a life of him from the large collection of letters and other documents which he had in his hands.

[Holyoake's *Hist. of Co-operation*, vol. i. pp. 86, 89, 145, 282, 358, and his *Sixty Years of an Agitator's Life*, vol. i. p. 40.—E. T. Craig, *History of Ralahine* (London), 1882, pp. 158, 161. *Inter*

alia, Owen's Labour notes were tried there (p. 75, etc.), (see LABOUR EXCHANGE). Also an article partly founded on family information, in the *Dictionary of National Biography*.] J. K. I.

PARIEU, FELIX ESQUIROU DE (1815-1893), was born at Aurillac, and died in Paris. As an economist his name is particularly connected with two questions—the INCOME TAX and MONOMETALLISM, on both which he displayed great erudition supported by remarkable literary talent. After having practised with distinction as a lawyer at Riom, he was elected by the department of the Cantal in April 1848 to the national constituent assembly. He succeeded in attracting attention there by his intelligence in economic questions. He was directed to draw up in the name of a parliamentary commission, 1st September 1848, a report on a plan for a progressive tax on successions and donations, including any DONATIO MORTIS CAUSA; and in his report he substituted the principle of proportionality for that of progression. On the 30th of the same month he made another report on the income tax. The minister of finance had proposed a tax levied by assessment (*Impôt de répartition*) of 60,000,000 francs (say £2,400,000). M. de Parieu transformed this into a tax levied by a percentage of 3 per cent (*Impôt de quotité de 3 per cent*). This tax applied to all personal property, even to income derived from the funds; it was not, however, proposed as a single tax, as it was to take its place by the side of other taxes.

These two proposed bills came to nothing; but they had at least the useful result that they impelled De Parieu to publish first the *Histoire des impôts généraux sur la propriété et le revenu*, 8vo, 1856, and then the *Traité des impôts considérés sous le rapport historique, économique et politique en France et à l'étranger*. which last went through two editions, the 1st in 5 vols. 8vo (1862-64), the 2nd in 4 vols. 8vo (1866-67). These two works, now out of print, have taken their place as classic. The first won for the author admission to the Institut (*Académie des Sciences morales et politiques*) in 1856. The question of monometallism on gold succeeded in his thoughts to that of the income tax. In 1857 he, almost alone, proposed the 25-franc piece, and gold as the standard. The object that henceforth he aimed at was the subordination of silver to gold and the establishment in all countries of gold monies of the same weight and value. As a politician M. de Parieu was a member of the constituent and legislative assembly of 1848, minister of public education from October 1849 to June 1851; member of the council of state, 1852-55; vice-president of this council, 1855-70; minister president of the council of state in the cabinet of Olivier; a member of the national assembly; then, after the Franco-German war, a senator until 1884.

A short time before the fall of the second empire De Parieu published an argumentative work: *Principes de la Science Politique*, 8vo. Pure democracy, that is to say the republic, does not figure in this work as the ideal of the author who, it should be remembered, approved though he did not take part in the *coup d'état* of 2nd December 1851. A. C. f.

PÂRIS-DUVERNEY, JOSEPH (died 1770), born at Moras near Grenoble, died near Château Thierry, was the third in order of birth of the four brothers Pâris, and first in that of capacity. The eldest, Antoine Pâris, was guardian of the royal treasury, an office from which he retired in 1730 in favour of his youngest brother Jacques Pâris de Montmartel. The second of the brothers called himself Pâris de la Montagne, from the sign (*à la Montagne*) of the inn his father kept. The father, who himself possessed considerable ability, established each of his sons in a vocation requiring first-rate business capacity. During the last years of the reign of Louis XIV., the brothers Pâris, who always lived together on the most affectionate terms, undertook the commissariat service for the forces stationed in Flanders and on the Italian frontier. They themselves, no doubt, obtained great profits from this, while by their good administration, the promptitude of their decisions, and their intelligent forethought, they were enabled to render great services to the armies.

Under the regency, the committee of finance, presided over by the Duc de Noailles, accepted favourably (1716) the financial plans of Pâris-Duverney, which for some time counterbalanced the growing influence of LAW, by arranging in shares the lease of the farm of the taxes (see FARMER GENERAL) which they had secured by contract at an annual payment of 48½ millions. This enterprise, a rival to that of the Scotch financier, was called by the people *Anti-Système*.

Law, by his influence, succeeded in annulling the lease of the farm of the taxes, which he undertook at the rate of 52 millions. The brothers Pâris then fell into disgrace and were even exiled from their native country so long as the SYSTÈME lasted. When Law sank, the real minister of finance was Pâris-Duverney, the official controllers-general continuing only for the sake of appearances. It was Pâris-Duverney who broke with the *Système*, and established that enormous operation, the VISA, which examined into the private property of more than 500,000 persons who had more or less had a share in the transactions of the *Système*.

It must be admitted that the energy of the rival of Law sometimes went too far, betraying him even into arbitrary acts, but his reputation of honesty never suffered. Pâris-Duverney was reproached for having too systematically opposed the ideas of the author of the *Système*.

When Cardinal de Fleury attained power, the brothers Pâris again fell into disgrace; Pâris-Duverney was even imprisoned in the Bastile for two years (1727-28). Justice, however, was done him in the end, when it was found that there were no grounds whatever for the charge brought against him.

Pâris-Duverney left many works in manuscript which have never been printed. This is a real loss considering their subjects, and that they are the work of so eminent a financier.

The list of his works according to Luchet is: *Traité des monnaies de France depuis le commencement de la monarchie jusqu'au 1er Janvier 1724.—Traité des domaines du roi depuis leur origine jusqu'au 1er Janvier 1725.—Traité des gabelles de France depuis leur commencement jusqu'au 1er Janvier 1726.—Traité des rentes depuis François 1er jusqu'à l'année 1725.—Traité des colonies françaises et de leur commerce depuis leur fondation jusqu'à l'année 1723.—Traité des changes créés ou supprimés depuis 1689 jusqu'au 1er Décembre 1721.—Dépouillement des droits existants sur les marchandises contenus dans le tarif de 1664 jusqu'à l'an 1726, avec les variations arrivées sur chaque espèce.*

A remarkable book has been attributed to him, *Examen du livre intitulé: Itéflexions politiques sur les finances et le commerce par Dutot*, 1740, 2 vols. 12mo, a review of the principle and effects of the *Système*. The warmth with which the writer defends the *Visa* is thought to show that he was the author of it.

The different operations of Law's scheme "are explained so fully, so clearly, and with so much order and distinctness, by Mr. Du-Verney, in his 'Examination of the Political Reflections upon Commerce and Finances of Mr. Du Tot,' that I shall not give any account of them" (Adam Smith, *Wealth of Nations*, bk. ii. ch. ii. p. 139, ed. M'C.). The *Examen* is also referred to in bk. ii. ch. iii. and in bk. v. ch. iii. p. 414.

[A very interesting life of Pâris-Duverney is contained in a little volume attributed to M. de Luchet, *Histoires des Messieurs Pâris*, 1776, 12mo. See also *Dict. de l'écon. politique.*] A. C. F.

PARISH. The importance of the parish for civil purposes dates from the Tudor period. Originally the smallest administrative unit was the township, upon which the ecclesiastical parish was usually modelled. With the rise of feudalism the TOWNSHIP was transformed into the MANOR. But in the 16th century the manorial system had decayed, whilst the ecclesiastical organisation of the parish was in full vigour. The churchwardens took care of the church fabric, and the vestry or assembly of householders met in the church under the presidency of the incumbent. Under Henry VIII. the churchwardens were charged with the relief of the poor. The poor law of Elizabeth, passed in 1601, directed that two justices of the peace dwelling in or near the parish should appoint overseers of the poor, who were to act with the churchwardens in this business. An act of Philip and Mary laid upon the parish the maintenance of highways, and created the office of parish surveyor. During three centuries the parish continued to be, under the county and the corporate town, the most important administrative subdivision. But it proved unsatisfactory, especially for the purposes of poor relief. Accordingly, the new poor law of 1834 created unions of parishes and transferred to them the relief of the poor. Subsequent legislation made similar changes with reference to public health and to highways. Thus the parish came to be little more than a constituent unit of the union, and a district for the collection of rates and the preparation of jury lists and parliamentary and municipal registers. An attempt to reform the larger parishes was made in 1831. Hobhouse's Act enabled parishes with 800 rated householders and upwards to choose a select vestry. Alike in the meetings of the common vestry and in the election of the select vestry the plural vote was admitted, and a large ratepayer might have as many as six votes. The incumbent was *ex officio* chairman in the select as well as in the common vestry, and the churchwardens still had equal powers with the overseers. Thus the ecclesiastical and the civil administration of the parish were still united. But the ecclesiastical and the poor-law parish did not always coincide, owing to the frequent subdivision of the ecclesiastical parish in recent times. There are in England about 15,000 poor-law parishes, varying greatly in extent and population. The majority have from 300 to 1000 inhabitants, but many have less than 50.

The Local Government Act 1894 (56 & 57 Vict. c. 73) has made a parochial revolution. Its principal objects were (1) to separate the civil from the ecclesiastical organisation of the parish; (2) to render the constitution of the parish absolutely democratic; (3) to enlarge considerably the powers of the parochial authority. The act applies to all parishes not included in the metropolis, in a corporate town, or in a local board district. The parish is defined as a place for which a separate poor-rate is or can be made, or for which a separate overseer is or can be appointed. The act provides that every rural poor-law parish, having a population of 300 or upwards, shall have a parish council. Parishes with less than 300 inhabitants may have councils if the inhabitants wish and the county council approves. Otherwise they may be grouped with neighbouring parishes. Every parish to which the act applies is to have a parish meeting. The parish meeting consists of all persons on the local government register or parliamentary register, who each have one vote and no more. It assembles at least once a year, and elects the parish council if there is one. Where there is no parish council, the parish meeting has all the powers of the former vestry. It has

power to adopt certain acts relating to baths and washhouses, recreation grounds, free libraries, etc.; to sanction the sale or exchange of parish property, and to incur any expense not involving a loan or a rate of more than 3d. in the pound. It must appoint a chairman, and may appoint a committee to transact routine business.

The parish council is to be elected annually at a parish meeting. Any person having a vote in the parish meeting, and any person who has resided twelve months in the parish, is eligible as a councillor. Each elector has one vote for each of the number of persons to be elected. The number of councillors is to be fixed by the county council, but must not be less than five or more than fifteen. The council must elect a chairman who will hold office for the year. It is a body corporate, and has power to hold lands without license in mortmain. The parish council is to take over all the powers formerly exercised by the vestry, except those relating to church business, and the powers of boards of guardians with respect to allotments and small holdings. It has power to acquire land for public buildings, recreation grounds, allotments, etc. If it fails to obtain land for any of these purposes, it may petition the county council, which may make an order compelling owners to sell the land required. If the county council refuse to make an order, the parish council may petition the Local Government Board. If any owner feels aggrieved by an order of the county council, he may present a memorial to the Local Government Board. In either case, the Local Government Board will institute a local inquiry, and make such an order as it thinks fit, which will be final. No additional allowance is to be made for compulsory purchase. The parish council has, subject to similar qualifications, a power of hiring land compulsorily for allotments. It has also extensive powers with respect to parochial charities other than ecclesiastical. It may not enter on expenditure which will involve a loan or a rate exceeding 6d. in the pound, without the sanction of the county council. The position of the former officers of the parish is changed by the act. The incumbent and the churchwardens are now deprived of all authority except in church business. The overseers, formerly appointed by the justices, are now to be appointed by the parish council. Some of their functions are transferred to the council itself.

[Gneist, *Constitutional History of England.*—Wright and Hobhouse, *Local Government and Taxation* (last ed. by Hobhouse and Fanshawe); the editions of the *Local Government Act* 1894, by Humphreys and Ryde. — Emery, *Complete Guide to Local Government Act.*—E. Jenks, *Eng. Local Govt.*, Methuen, 1896.] F. C. M.

PARITY OF VALUE. A term used for a variable par as between gold and silver exchanges. In the Indian exchanges, so long as the mints were open, the value of the rupee was $\frac{1}{15\frac{1}{2}}$ of the price of an ounce of standard silver, *plus* about 3 per cent for charges, and the parity was found by multiplying the day's price by ·383. The mints being closed, the rupee becomes a protected monopoly, and its value is a matter of negotiation.

Calculations as to parity are also required in bullion transactions between London and various foreign markets. In London, quotations for gold and silver are always for standard fineness —*i.e.* 916·6, and 925 respectively. In Paris and Berlin both metals are quoted fine; in New York gold is quoted for 900, and silver for 999 fine. R. W. B.

PARK. See FORESTS, MEDIÆVAL.

PARK, JAMES ALAN (1763-1838), English judge, was called to the bar in 1784.

In 1816, Park was appointed a judge of the court of common pleas. He published (1787) his *Law of Marine Insurance*, a standard work, which passed through many editions, and was written under the direct encouragement of Lord Mansfield.

[*Biographical Dictionary of English Judges*, by E. Foss.] H. E. E.

PARKER, HENRY (1604-1651), barrister-at-law, was the author of twenty-four political pamphlets on the popular side (1640-47, 1650-51), of one on *Reformation in Courts and cases testamentary* (1650), and of one, *Of a Free Trade, a discourse seriously recommending to our nation the wonderful benefits of trade, especially of a rightly governed and ordered trade, setting forth also most clearly the relative nature, degrees, and qualifications of libertie which is ever to be enlarged or restrained according to that good which it relates to as that is more or less ample* (1648). The latter was written during his sojourn at Hamburg (1647-49) (*Gentleman's Magazine*, xxxv. 109) as secretary to the Merchant Adventurers there (*Cal. of State Papers, Dom. Ser.*, 1649-50, p. 34). It is a defence of the privileges of the Merchant Adventurers against the attacks of "free traders," like Brent, in his *Discourse consisting of motives for the enlargement of freedom of Trade* (1645), and VIOLET, in his *Advancement of Merchandise* (1651, pp. 10-12), and reads like a clever abridgment of J. WHEELER'S *Treatise on Commerce* (1601). He attacks INTERLOPERS (individual merchants) and "pedlars" (retail traders), and although, like Wheeler (*l.c.* p. 101 *et seq.*) he repudiates the charge that his company is a monopolist, he defends "stinting" (limiting exports); the practice of selling at Hamburg and Antwerp only, and only on certain days; apprenticeship, etc.; and advocates more "reglement of trade" on the usual ground that trade would become "overstocked," "confused," and "straggling," and would very soon die unless it was "well ordered."

Order, he thinks, will prove an economy, and pruning will promote trade; and trade magnifies a nation more than war does. Like war, trade is an outcome of men's "wolvish" instincts which when pressed into the service of the state are turned into virtues (pp. 18, 19). RALEGH'S

ideal of the state merchant, and envy and praise of Holland, are always present to his imagination; and he praises his company for its religion, law, charity, navy, and diplomacy rather than its wealth. He is more of a politician than an economist. Indeed his views on wealth are indistinct. In an age when MADDISON (*England's looking in and out*, 1640), Battie (*Merchant's Remonstrance*, 1648), and ROBINSON (*Proposals in order to the People's Freedom*, 1652) dinned into willing ears that trade only enriches if there are net exports which bring in money; and when POTTER modified this theory by his doctrine that money is a mere security for obtaining "things of real value" (*Key of Wealth*, 1650); and Maddison (*l.c.* p. 11), L. ROBERTS (*Treasure of Traffike*, 1641, p. 22), and Φιλόπατρις (*The Advocate*, 1651, p. 13) undermined the application of the theory by urging that "no lawes are prevalent against gain," Parker wrote: "Exports conduce perhaps more to profit, and things imported to securance; yet . . . both . . . conduce to both. Native commodities more immediately afford us treasure: and forrain commodities are more usually materials for shipping, etc., . . . yet sometimes we retayle the same to strangers for gain" ("profit" and "gain" mean money), a sentence to which neither MISSELDEN nor MALYNES could have objected. He clearly wishes to face both ways. J. D. R.

PARLIAMENT, ROLLS OF. This name has been given to the ancient records of the proceedings of parliament kept by the clerks of the chancery. They extend from the sixth year of Edward I. to the nineteenth year of Henry VII. 1278-1503 A.D. In later times their place has been supplied by the journals of the two Houses. The journals of the House of Lords began in the first year of Henry VIII. 1509 A.D., and the journals of the House of Commons in the first year of Edward VI. 1547 A.D. In 1832, the Rolls of Parliament were published in six volumes, folio, under the title *Rotuli Parliamentorum ut et Petitiones et Placita in Parliamento*. F. C. M.

PARNELL, HENRY BROOKE (1776-1842), afterwards first Baron Congleton, the son of Sir John Parnell, was educated at Eton and Cambridge, which he left without taking a degree, and entered the Irish parliament as member for Maryborough in 1797. In 1802 he represented Queen's County in the first parliament of the United Kingdom, and soon, either through natural leaning or some force of circumstances, began to associate himself with movements of an economic character. On 18th April 1809 he introduced a resolution for assimilating IRISH CURRENCY (*q.v.*) to that of the rest of the United Kingdom. On 19th Feb. 1810 he became a member of the BULLION COMMITTEE. He was chairman of the select committee of 1813 to inquire into the corn trade of the United Kingdom. In July 1819 he brought forward serious retrenchment resolutions; he had somewhat severe ideas of public economy, and when he became secretary at war, 4th April 1831, made such a point of reducing the army estimates, that his colleagues had to part with him, and he relinquished his office in 1832. Nevertheless he returned to office under Lord Melbourne on 14th May 1835, as paymaster-general. He committed suicide in 1842.

His best-known work is that on *Financial Reform*, London, 1830. His main contention is that the public expenditure was overgrown, and that, especially in the non-productive services, considerable reductions could be effected. Of his other economic works the principal were, *Observations on the State of the Currency in Ireland*, Dublin, 1804. — *Principles of Currency and Exchange, illustrated by observations on the State of Ireland*, Dublin, 1805.—*A Treatise on the Corn Laws and Agriculture*, London, 1809.—*Observations on the Irish Butter Acts*, London, 1825. — *Observations on Paper Money, Banking, and Overtrading*, London, 1827.—*A plain statement of the Power of the Bank of England and the use it has made of it* (published anonymously), 1832. — *A Treatise on Roads*, London, 1833.

[*Dictionary of National Biography.*] C. A. H.

PARQUET (Fr. an enclosure). On public bourses the railed-in space within which the privileged brokers or *agents de change* (see CHANGE, AGENTS DE) carry on their operations; the word is also employed to distinguish the official market from the outside market or COULISSE (*q.v.*). By extension the two words are applied to the business itself, for example, "the *parquet* was weak, the *coulisse* firm," many securities being dealt in on both. In legal phraseology the *parquet* is the office of the public prosecutor in the law courts, or the officers appointed by the minister of justice to set in motion the action of the law in criminal affairs or in civil proceedings when they are matters of public policy. T. L.

PARS OF EXCHANGE. See EXCHANGE, FOREIGN.

PARSIMONY. See THRIFT.

PARTICULAR AVERAGE. The losses provided against by marine insurances are "total loss" and "partial loss."

Partial loss is either a "*general average loss*" or a "*particular average loss.*" *Total loss* is either *actual* or *constructive*. When the subject matter is destroyed or irreparably damaged, or when the assured is irretrievably deprived thereof, there is an "*actual total loss*" (Marine Insurance Bill, § 57 [1]). A "*constructive total loss*" is, on the other hand, said to arise (*a*) in the case of a ship, when the insured ship is so damaged that the expense of repair would exceed the value of the ship when repaired; (*b*) in any other case, when the subject matter is so damaged, or affected by a peril insured against, that, having regard to cost, it is not reasonable to require the adventure to be prosecuted to its termination (Marine Insurance Bill, § 60).

General average arises whenever part of the cargo is sacrificed, or some expenditure is incurred

for the benefit of the ship and cargo generally, *e.g.* when goods are thrown overboard for the purpose of lightening the ship. The value of the lost goods or the amount of the expenditure is, in such a case, made up to the person concerned by contributions payable by the owners of the ship and cargo in proportion to the value of their respective interests, and they in their turn, if the insurance covers general average, are reimbursed by the underwriters. A "*particular average loss*," on the other hand, is a partial loss which falls on the owner of the goods affected by it exclusively (*e.g.* damage done to goods by sea-water is a particular average loss, unless the goods are so badly damaged that a case of "total loss" arises, in which event the goods are handed over to the underwriters, and the assured receives the full amount of the insurance).

In many cases it is doubtful whether a total loss may be claimed for, or whether there is only a claim for compensation under the head of particular average.

If the claim is made in respect of "constructive" total loss, notice of abandonment must be given within the usual time, and the underwriters have then to determine whether they will admit or contest the claim, and in the event of the parties not being able to agree, the question must be decided by arbitration or litigation.

A policy drawn up in the ordinary form contains the following clauses :—

"(*a*) Corn, fish, salt, fruit, flour, and seed are warranted *free from average*, unless general, or th ship be stranded.

(*b*) Sugar, tobaceo, hemp, flax, hides, and skins are warranted *free from average under £5 per cent.* And also—

(*c*) All other goods, also the ship and freight, are warranted *free from average under £3 per cent.* unless the ship be stranded."

This means that, except in so far as the common-form policy is varied by special agreement, the underwriters do not insure the goods mentioned under (*a*) against particular average in ordinary cases, but that if the ship be stranded, particular average is insured against; that the goods mentioned under (*b*) are not insured against particular average unless it diminishes the value of the goods to an extent exceeding 5 per cent of the insured value; and that all goods not mentioned under (*a*) and (*b*) are insured against particular average diminishing their value to an extent exceeding 3 per cent, and against particular average of any sort arising in the event of the ship being stranded. In modern commercial usage an insurance which covers total loss, general and particular average is called an insurance "against all risks," and an insurance against total loss and general average only is called f. p. a. (free of particular average).

[Smith, *Mercantile Law*, ed. by Macdonell, 10th edition, 1890.—Gow, W., *Marine Insurance*, Macmillan, 1893; and see the Marine Insurance Bill, intended to codify the law of marine insurance.] E. S.

PARTICULAR ESTATE. A particular estate (Lat. *particula*, a small portion) signifies a limited interest in lands or tenements, an interest less than the fee simple estate, which is the largest interest that an English subject can have in land. An estate for life is an example of a particular estate.

[Williams, *Principles of the Law of Real Property*.—Digby, *History of the Law of Real Property*.] E. C. M.

PARTNERSHIP.

Partnership, History of, p. 65; Partnership, Canonist Theory, p. 68; Partnership, Form of, as Commandite, p. 68; Partnership, Industrial, p. 69; Partnership, Law of, p. 69; Partnership, Mediæval, p. 71.

PARTNERSHIP, History of. Sir Henry Maine's statement, *Ancient Law*, p. 170, that the progress of society leads to the substitution of contractual relations for relations imposed by those natural and legal conditions affecting individuals which are known under the name of *status*, is borne out by the history of the law of partnership. Some form of association for economic purposes seems to have existed in very remote times. Tablets inscribed with cuneiform characters have been discovered which show that associations established for mercantile purposes and trading, under a kind of trade-name, existed in Assyria more than twenty centuries before the present era, and the principle of uniting funds for common objects was well known in ancient Greece. Gaius refers to a law of Solon (see Justinian's *Digest*, 47, 22, 4), in which the objects are named for which autonomous societies existed. They include trade (*εἰς ἐμποριαν*) as well as the less creditable occupation of piracy (*ἐπὶ λείαν οἰχόμενοι*).

There is also a well-known passage in Aristotle (*Eth. Nic.* viii. 11), in which such associations (*κοινωνίαι*) for a common object are mentioned, the object being either the prosecution of gain or some convivial or domestic purpose such as the sharing of meals, the members in that case being called *σύσσιτοι*, and a certain class of societies known as *ἔρανοι* are referred to by some of the Attic orators (see Meier and Schömann's *Attischer Prozess*, edited by Lipsius, 1883-1887, pp. 637-643). Information about oriental and Greek partnerships is, however, too scanty to enable us to form an opinion as to their origin and history.

It is only when we proceed to examine the legal history of the Roman republic and empire that more reliable data are discovered, and from these it is clear that the Roman *Societas* in its original form was not the result of contract, but of natural ties. Roman family relations must always be looked on from two aspects. The "agnatic" family is an economic unit under the authority of a head, in whom the property is vested and under whose *potestas* all the members of the family are placed. Emancipated sons and married daughters brought under another man's *potestas* cease to belong to the agnatic family. On the other hand, the "cognatic" family comprises all the children, and their issue without reference to *potestas;* it is not a unit for economic purposes, but its

members are held together by various ties, one being the respect, *obsequium*, due to the common ancestor.

Thus it comes that even after the death of the father, brothers and sisters are held together; they remain members of the cognatic family which is called the *secta*, a word derived from the same root as *obsequium* and *exsequiae* —which latter expression denotes the funeral rites which the cognatic family had to attend to, on the ancestor's death—and is also etymologically connected with *societas*, and as the father's estate was generally bequeathed to them as tenants in common (though the right of the cognates to inherit was established at a later period only), they frequently found it convenient not to divide the property, but to administer it for their common advantage. When property was left to several persons as tenants in common, the individual shares were generally ascertained by lot; hence the Greek word for inheritance is κληρονομία = that which is ascertained by lot; the division by lot is also indicated in the Latin word *consortium*, but that word also shows that it was customary to keep the parts together. Thus brothers and sisters who, having in their father's lifetime been members of the same *secta* or *societas*, were also called *socii*, frequently kept the inherited property together, and used or traded with it for their common advantage.

Another instance of common ownership under the name of *societas* is also of importance in connection with our subject. In the same way as the emancipated children were bound together by the common tie of *obsequium*, the slave who had received his freedom owed this *obsequium* to his former master. One of the ways to enforce this duty was to impose the condition that, on its being neglected, the master should be entitled to a share in the freedman's goods, which in that event were held in common by the *patronus* and *libertus* in the same way as inherited property was held in common by the *fraternum consortium*; the name *societas*, which, as shown above, was derived from the family relation, was also applied to this relation, which was one of contractual partnership.

But the voluntary association of several persons to carry on business on joint account was not immediately evolved out of the types of association to which we have referred. A third class of *societas* began to be formed at the time of the second Punic War for the purpose of contracting for the supplies to be furnished to the Roman army (see Livius, xxiii. 48 (539)), and the societies who farmed the state revenues, *vectigalium publicorum socii*, were also organised on a similar plan. These societies, known by the collective name of *societates publicanorum*, had corporate rights, and differed therefore from partnerships in the ordinary sense, but they no doubt called attention to the possibility of joining funds for purposes of profit.—For fuller information on the early history of partnerships and trading societies in Rome, see Leist, *Geschichte der Römischen Societas*, from which work the information given above is mainly derived.

There were therefore two kinds of association known during the times of the Roman republic: the one resulting from natural ties, being either the *fraternum consortium* or the common ownership in the goods of a freedman who had neglected the *obsequium* due to his *patronus*; the other resulting from voluntary association for purposes of gain, but being more like a trading corporation than like a partnership. During the classical period of Rome, which began soon after the foundation of the empire, associations began to be formed of a private nature, and partaking of many legal characteristics of the ancient family societies, but entirely voluntary, and established for purposes of gain like the above-mentioned trading corporations. At this later stage all partnerships were the result of contract, and we see from an enumeration made by Ulpian (about 200 A.D.) that they referred either to the whole of the present and future property of the partners, *societates omnium bonorum*, or were entered upon for some particular transaction, *negotiationis alicujus*, or for farming taxes, or for the joint management of one particular object of property, *societates unius rei* (see Justinian's *Dig.* 17, 2, 5). Paulus, one of Ulpian's contemporaries, gives an instance of a professional partnership ("duo societatem coierunt ut grammaticam docerent et quod ex eo artificio quaestus fecissent, commune eorum esset," *Dig.* 17, 2, 71). The legal characteristics of private partnerships as distinguished from trading corporations are at that time clearly recognised (see the quotation from Pomponius, *Dig.* 17, 2, 59, and see also *Dig.* 3, 4, 1, pr.), and it is also pointed out by the jurists of that period that not all the partners need necessarily contribute capital, as a partner's work may entitle him to a share of the profits ("saepe enim opera alicujus pro pecunia valet" Gaius, iii. § 149, see also *Dig.* 17, 2, 5, § 1). Much attention was already given to the details of partnership arrangements, such as the division of profits and losses (*Inst.* 3, 25, § 1, § 2 i; Gaius, iii. §§ 149, 150; *Dig.* 17, 2, 29, § 2 i; *ibid.* 17, 2, 30), the degree of diligence required from partners (*Dig.* 17, 2, 72), and the events which cause a partnership to be dissolved (*Inst.* 3, 25, § 5, i; *Dig.* 17, 2, 65, §§ 3, 5; *ibid* 17, 2, 70). Even minute points, such as the question whether a partner who is wounded in trying to protect the partnership property is entitled to recover his medical expenses from the partnership (see *Dig.* 17, 2, 60, and 61), are discussed with great elaboration. It must, however, be pointed out that, notwithstanding many similarities, the partnership of the classical as well as of the earlier periods of Roman law

is essentially different from the partnership of our days. No broad distinction is drawn in Roman law between common ownership of property and the mere sharing of profits and losses; nor are permanent trading associations distinguished from occasional transactions on joint account. There is no partnership capital kept distinct from the capital of the partners, and no general rule exists according to which a partner has authority to incur liabilities binding his co-partners. Even when he is specially authorised to incur a liability on their behalf, it is doubtful to what extent they are liable (see Windscheid, *Pandekten*, 5th ed. ii. § 407, note 7). In many ways the rules still partake of the character belonging to the older associations between members of the same family, and the influence of the greater freedom of intercourse brought about by the extension of the empire and the increase of wealth is not yet sufficiently felt. The principal reason for this fact is to be found in the continued existence of slavery, which took away many of the motives which in our days induce traders to form partnerships.

A very convenient method of trading was furnished through the instrumentality of the *peculium*, being the property put into the hands of a non-emancipated son, or of a slave, for purposes of trade. The creditors of such son or slave were under the praetor's edict entitled to sue the head of the family in respect of the trade-debts, but the judgment could be enforced only in so far as the judgment debt did not exceed the value of the *peculium* (see the title *De Peculio*, *Digest* xvi.). This rule enabled a master to trade with limited liability through the agency of his slave. It was also possible for several masters to become co-owners of a slave, and carry on a trade in co-partnership through his agency. Each partner was then liable for the trade-debts to the extent of the whole *peculium*, but he was entitled to claim contribution from his co-partners to the extent of the sums which represented their shares (see *Digest* xv., 1, 27, 8). This method of trading with limited liability was not the only one known in Roman law (see Goldschmidt, *Universalgeschichte des Handelsrechts*, vol. i. p. 91), and the entrusting money to others for trade purposes, which frequently brought about a similar relation, was in the language of later latinity called *commendare* (from *cum-mandare*, mandare being derived from manui dare; as to the mediæval applications of the word, see Ducange, *Glossarium*). The form of partnership known as *commenda* in mediæval law was therefore known already by the same name in earlier times.

When the mercantile cities of Italy—among which Venice, Pisa, and Genoa began in the 9th century to be prosperous—established a large maritime trade, the *commenda* (viz. the relationship in which there is an active partner liable without limit, and a capitalist partner whose risk is limited to a fixed sum) became a favourite form of association. It was in the beginning merely of a temporary nature, and used by capitalists who wanted to join in some particular maritime enterprise with a limited risk, but in course of time it was also applied to internal trade, and more permanent relations between the capitalists and active traders became customary. Thus the large financial houses of the Bardi and Peruzzi in Florence, who lent 1,365,000 gold florins to Edward III., traded as to part only with their own money, whilst the bulk of their capital was furnished by commandite partners and depositors, *aveano in accommanda ed in deposito di piu cittadini e forestieri* (Villani, quoted by Troplong, *Traité de la Société*, vol. i. p. 66).

Thus the prototype of the modern *société en commandite* was in the early part of the middle ages the most important form of association, but the partnership of modern times, in which all partners are liable without limit for the partnership debts, traces its pedigree from more humble progenitors. Like the Roman *Societas*, it originated in the family community in which a small trade or handicraft was carried on by the persons eating their bread together (*cum-panes* = σύσσιτοι, from which word the expressions *Company* and *Compagnon* are derived). The trade of these family associations was carried on in a common workshop, or warehouse, known by some well-known sign which was used as a comprehensive designation of the persons using it as the centre of their operations. Hence arose the use of firm names, and the personification of the mercantile unit, represented by the sign of the house, as well as the custom to recognise every partner as agent for the partnership.

The names of the partners were entered in the books of the guilds representing the trade to which they belonged, which guild registers served as the foundation of the registers of firms in use in most continental countries. In these partnerships, for the first time, the partnership capital, which—in connection with the original character of the joint establishment, was looked on as a common fund not accessible for the partners' private purposes—was kept strictly separate from the separate capital of the partners. Originally only the partnership capital was liable for the partnership debts, and it was only gradually that the unlimited liability of the partners' separate capital became customary. (For further particulars of the development see Goldschmidt, *l.c.* pp. 271-290). The custom of trading under a firm, and with a partnership capital, was subsequently also adopted by voluntary associations not bound together by any family tie, and partnerships trading with unlimited liability began in the 16th century

to assume the same importance as the commandite partnerships, which in the early parts of the middle ages had monopolised all other branches of trade (see Goldschmidt, *op. cit.* pp. 289-290; on the whole development, see also Lastig, "Allgemeine Uebersicht," in Endemann's *Handbuch*, pp. 329-332, and the authorities there cited).

Thus it came about that, like in ancient Rome, the partnership formed by natural ties and founded on *Status*, preceded and established the characteristics for contractual partnerships.

The development of trade finally produced the third type of mercantile association, which we also noticed in the Roman development. Companies enjoying corporate rights, and trading with a capital divided into shares—which shares, unlike shares in ordinary partnerships or commandite partnerships, were transferable by contract and transmissible on death,—existed in Italy at a very early period under the name of *monte* (the expressions *massa* and *maona* are also used). They are associations of capitalists who advanced funds to governments, and in return received certain trade privileges. The oldest of these associations was established for temporary purposes only, but in 1346 the Genoese *maona* of Chios and Phokaea, also known as *Maona dei Giustinini*, received a more permanent organisation. In return for a loan required by the city of Genoa for an expedition undertaken by Simon Vignos and others, the exploitation of Chios and Phokaea was entrusted to this company under the suzerainty of the Genoese state; they also obtained important trade monopolies, and the company continued to have an independent existence until 1513, when it was purchased by the well-known *Monte delle compere e dei banchi di S. Giorgio* of Genoa, the first fully organised banking company, which was founded in 1407, and continued to exist until the extinction of the republic of Genoa (see Goldschmidt, *op. cit.* pp. 295-297).

In England the ground for the trading companies was prepared by the merchant adventurers (see ADVENTURERS, MERCHANTS; COMPANIES, STAPLE), and companies similar to the Italian companies, mentioned above, are to be found regularly from the middle of the 16th century, but the establishment of companies with permanent objects is of a somewhat later date. The EAST INDIA COMPANY (*q.v.*), founded in 1600, is one of the earliest English permanent companies. These companies were all incorporated by royal charter, and the possibility of acquiring corporate rights by virtue of a general act was established during the present reign only.

[As to the modern development of English company law, see Lindley on *Company Law*, pp. 2-7; 923-930. Besides the books referred to in the text the following deserve mention: Goldschmidt, *Alte und neue Formen der Handelsgesellschaften.* — Silberschmidt, *Die commenda.* — Schmidt, *Handelsgesellschaften des Mittelalters.* — Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre.* — Lastig, *Entwickelungswege und Quellen des Handelsrechts.* —Weber, *Zur Geschichte der Handelsgesellschaften im Mittelalter.* — Lattes, *Il diritto commerciale nella legislazione statutaria delle città Italiane.* — Pappenheim, "Altnordische Handelsgesellschaften" in *Zeitschrift für das Ges.-Handelsrecht*, vol. xxxvi. pp. 85-123.—Adler, *Zur Entwickelungslehre und Dogmatik des Gesellschaftsrechts* See also the articles by Lastig and Wendt in Endemann's *Handbuch*, vol. i. on pp. 310, §§ 343, 428.] E. S.

PARTNERSHIP, CANONIST THEORY. The phenomena of business partnership (SOCIETAS) presented themselves for judgment before the schoolmen and canonists of the middle ages, chiefly in their relation to the theory of usury (see INTEREST AND USURY). A partnership wherein each member shared in the management of the business raised no difficulties: the profit (*lucrum*) might in such a case be regarded as the reward of labour. Not only so, but a partnership in which some of the members contributed capital only, without labour, and yet expected profit, was regarded as equally allowable,—on one condition, viz. that the investor really "adventured," *i.e.* really shared in the "risk," both as regards the sum invested and the gain to be derived from it. The running of risk was held both to furnish an ethical justification for gain, and also to prove that the investor remained the *owner* of the sum invested, so that the contract was clearly distinguishable from one of LOAN (*q.v.*) or MUTUUM, in which the ownership of the money was held to pass over to the recipient. Any attempt by subsidiary contracts to assure the investor against the loss of his capital, or to guarantee a profit independent of the chances of trade, brought the arrangement within the scope of the prohibition of usury.

[The passage in AQUINAS, *Summa Theologica*, Secunda Secundæ, Qu. 78, Art. 2, was the starting point of subsequent discussion. A very elaborate treatment of *Sozietät* will be found in the first vol. of W. Endemann's *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre* (1874); on which, with some attempt to correct its bias, is based the account in Ashley, *Economic History*, vol. i. pt. ii. (Amer. ed. vol. ii.) pp. 419, 420. (See also PARTNERSHIP, MEDIÆVAL.)] W. J. A.

PARTNERSHIP, FORM OF, AS COMMANDITE. A partner is as a rule liable jointly with his co-partners for all debts of the firm; and after his death his estate is liable for such debts subject to the prior payment of his private debts.

It has been thought desirable to introduce forms of partnership in which a person might contribute capital and receive a share of the

profits without at the same time incurring unlimited liability towards creditors. The Partnership Act of 1890, embodying the provisions of "Bovill's Act" passed in 1865, recognises this principle, and states that the receipt of a share of the profit of a business or of a payment contingent on or varying with the profits, does not of itself make such person a partner. But whilst these provisions only relate to private arrangements, which may at any time be altered or cancelled between the parties, subject however to the restriction that, in the event of bankruptcy, a person entitled to a share of profits, but not being a partner, cannot prove in competition with other creditors, the form of partnership known as "Limited Partnership" and *société en commandite*, and used in most mercantile countries, including the United States, gives effect to the principle referred to in a much more consistent manner. In a commandite partnership, there are one or more partners managing the affairs of the firm, and liable to an unlimited extent, who are called "general partners," and one or more dormant partners, who are called "special partners" (*commanditaires*), who are only liable to a limited extent. The amount for which they are liable, and the time during which the liability continues, must be registered and published, and no arrangement between the partners varying the registered agreement can affect the creditors of the partnership.

Owing to the spread of limited *Companies*, commandite partnerships have in all countries come very much into disuse, and the fact that the provisions of the British Companies Act 1867, § 4, which allows limited companies to be formed in which the managers or directors are liable to an unlimited extent, have remained a dead letter, shows that in British countries there is no real demand for "commandite" partnerships.

[See *Revised Statutes of the State of New York*, pt. ii. ch. iv. title 1.—*French Code de Comm.*, §§ 23, 28, German *M. C.*, §§ 150-206, Italian *M.C.*, §§ 114-120; Spanish *M.C.*, §§ 145-150; Portug. *M.C.*, §§ 104, 113, 114, and other *Mercantile Codes*.] J. E. C. M.

PARTNERSHIP, INDUSTRIAL. See PROFIT SHARING.

PARTNERSHIP (LAW OF).[1] Partnership in the widest sense means every association for common purposes, and in a somewhat narrower but still comprehensive application, it means every association for purposes of gain. In the strictly legal sense the word is, however, of more limited import. In all countries partnerships are distinguished from incorporated *companies* (see COMPANIES; JOINT-STOCK COMPANIES; STANNARIES). Subject to that exception, a partnership in the United Kingdom, as well as in such parts of the British empire in which the P. A. has come into force, is defined to be in (§ 1) as "the relation which subsists between persons carrying on a business in common with a view of profit," the word "business" including, according to the definition given by § 45 of the same act, "every trade, occupation, or profession."

English law does not distinguish between mercantile and other partnerships, as some of the continental codes do, in which non-mercantile partnerships are governed by rules differing in many important respects from the rules governing mercantile partnerships. This is more especially the case with reference to the liability for the partnership debts, which in the case of mercantile partnerships extends to the whole debts for each partner, whilst in the case of non-mercantile partnerships the partners are liable in equal shares, no partner being liable beyond his share (see for instance F. C. C. §§ 1862 and 1863); but there are many other matters in respect of which non-mercantile partnerships, which in Germany include professional partnerships and partnerships between innkeepers, artizans, and small tradesmen generally, are, according to continental law, not governed by the rules applicable to mercantile partnerships (see G. M. C. §§ 85 and 10; F. C. C. act 20, art. 1, and the decisions thereon; and the I. C. d. C. art. 76, and art. 3-7).

In the United Kingdom one kind of mercantile partnership only is known, *i.e.* that in which all partners are liable for the partnership debts without limit. A person may—under the law originally laid down by the House of Lords in Cox *v.* Hickmann (8 H. L., C. 268), and subsequently declared by Bovill's Act, now re-enacted with certain slight alterations by P. A. 1890, § 2 (3)—have a share of profits without being a partner, but all partners are liable without limit. On the continent, on the other hand, there is a form of partnership called *société en Commandite* (see G. M. C. § 150; F. C. d. C. § 23; I. C. d. C. §§ 76, 117), in which one or several of the partners may limit their liability, whilst one at least of the other partners is liable without limit. The limited partners may divide their interest in the partnership capital into shares, in which case the partnership has some of the characteristics of a company, and is called *société en Commandite par actions* (see G. M. C. § 173; F. C. d. C. § 38; I. C. d. C. §§ 119 and 120) (see PARTNERSHIP, FORM OF, AS COMMANDITE). It was intended to introduce commandite partnerships with a share capital into the United Kingdom, and the provisions of C. A. 1867, § 4, are quite sufficient for the purpose; but it does not seem that any one has ever attempted to apply them. There is finally a form of partnership which exists in

[1] *The following abbreviations are used throughout this article*:—B. A. = Bankruptcy Act 1883; C. A. = Companies Act; F. C. C. = French *Code Civil*; F. C. d. C. = French *Code de Commerce*; G. M. C. = German *Mercantile Code*; I. C. d. C. = Italian *Codice di Commercio*; P. A. = Partnership Act 1890.

Germany, by virtue of a statute passed in 1892, in which all the partners are liable to a limited extent only (*Gesellschaft mit beschränkter Haftung*). This form of partnership is distinguishable from a limited "company" in various ways, but in the United Kingdom its place is taken up by "private companies," which are companies in the full sense, but have generally some provisions in their articles by which the more private character of the association is secured (*e.g.* clauses providing that shares cannot be sold without being offered to the shareholders).

According to English law a partnership established for banking having more than ten, and any other partnership having more than twenty members must, unless it belongs to certain privileged associations specially dealt with by statute, be incorporated as a company under the C. A. or by special act or by special charter (C. A. 1862, § 4). On the continent, on the other hand, there is no restriction as to the number of partners in private partnerships.

Persons who have entered into partnership are collectively called a FIRM (*q.v.*). In England the firm is only looked on as a collection of persons who have joint rights and joint liabilities, but in Scotland a firm is a legal person distinct from the partners of whom it is composed (P. A. 1890, § 4), and this is also the theory of French law. As it is now possible in England to bring and defend actions in the firm's name (R. S. C. 1891, Order xlviii. A. r. 1), the distinction has lost most of its importance.

One of the principal incidents of the partnership relation, which, in those continental countries in which mercantile partnerships are distinguished from others, attaches to mercantile partnerships only, is by the P. A. 1890, § 5, described as follows:—"Every partner is an agent of the firm and his other partners; and the acts of every partner who does any act for the carrying on in the usual way of business of the kind carried on by the firm of which he is a member, bind the firm and his partners, unless the partner so acting has in fact no authority to act for the firm in the particular matter, and the person with whom he is dealing either knows that he has no authority or does not know or believe him to be a partner." Where, however, one partner pledges the credit of the firm for a purpose apparently not connected with the firm's ordinary course of business, the firm is not bound, unless he is in fact specially authorised by the other partners (*ib.* § 7). On the continent, restrictions in a partner's implied authority are binding on third parties, although unknown to them, if entered on the register (see G. M. C. §§ 115, 86, 87; I. C. d. C. §§ 88, 90).

The question as to who is or who is not a partner in a firm is also of easier solution on the continent than in the United Kingdom, as a person registered as partner in a firm on the mercantile register is, as between himself and third parties, estopped from denying that he is a partner (G. M. C. § 25; I. C. d. C. §§ 103, 88; French St. 24th July 1867, §§ 55, 57, 61). In the countries governed by British law, registers of firms are not used, and it is therefore necessary to inquire into the exact facts in order to find out whether any given person may be treated as a partner or not, but persons "holding themselves out" as partners may be made liable as such, although they are not partners in fact (P. A. 1890, § 14).

The internal affairs of a partnership are generally arranged by contract between the partners. In the United Kingdom, a written contract is not required unless the duration of the partnership is to extend over a year, and in Germany a written contract is unnecessary in any event (G. M. C. § 85), but in France and Italy a written contract must be registered in all cases, and certain parts of it, including statements as to the names of the partners, the trade name, the authority of the partners to act for the firm, the duration of the partnership, and the amount of the partnership capital, must be published in certain newspapers (F. C. d. C. §§ 39, 41; St. of the 24th July 1867, § 57; I. C. d. C. §§ 87, 88, 90, 93).

The codes relating to the law of partnership contain regulations as to the rights in respect of the partnership property, the sharing of profits, the interests payable on advances of capital, the duty of partners not to carry on business in competition with the firm, the powers of majorities, the expulsion of partners, the duration of partnerships, and other matters (see P. A. 1890, §§ 19, 31; G. M. C. §§ 90-109; F. C. d. C. § 18; I. C. C. §§ 1707-1725; C. d. C. §§ 107-113) which have to be applied in the absence of contractual stipulations to the contrary.

The procedure to be adopted for the purpose of recovering partnership debts by execution against the property of individual partners, or the estates of deceased partners, is too complicated to be discussed in this place (as to the U. K. see P. A. § 9, and Kendall v. Hamilton, 4, Ap. c. 504; as to Germany, M. C. § 112; as to France, C. d. C. §§ 22, 64; C. C. §§ 1200, 1202; as to Italy, C. d. C. §§ 76, 206; C. C. §§ 1186, 1189). The rules in this matter are, in the view of English courts, mere matter of procedure, and must therefore be decided by the law of the place in which the action is brought, without reference to the law of the place in which the partnership business is carried on (*in re* Doetsch [1896] 2. ch. 830).

In case of bankruptcy the partnership creditors are, in the United Kingdom and Germany, entitled to the partnership property, and the

separate creditors of any partner are entitled to such partner's separate property. If any surplus remains in either case, such surplus is available for the partnership creditors, or the separate creditors, as the case may be (B. A. 1883, § 40 (3); G. M. C. § 122).

From an economic point of view the regulation of partnership law by rules adapted to the usages and requirements of mercantile life, is of great importance, as in consequence of such regulation the formation of partnerships and more especially their dealings with other traders and with each other, are considerably facilitated. The disadvantages of trading without partners are so obvious that they hardly require mention, but the comparison between partnerships and companies is more difficult. For those classes of business in which the personal capacities of the managers are of great importance, private partnerships may appear preferable, as they are more likely to retain permanent customers, but even in this respect much may be said on the other side, as the vicissitudes of health and the uncertainty of life make it impossible to rely with confidence on the continuance of the personal qualities which, in a given case, make it desirable to transact business with a particular firm, whilst on the other hand a company is more likely to be able to replace a capable manager by one equally capable, who, by having previously assisted his predecessor, will continue to work in the same manner.

In a private partnership there is, of course, a greater possibility for sons to continue in the footsteps of their father than in a company, and the continuance of firms by successive generations of the same family has many obvious advantages from a public point of view; but these advantages were much greater when the mercantile classes were socially distinct from the leisured classes. In our days a share in the family business is frequently looked on as property not involving any duties, enabling the owner to share the life of those who in former days would not have associated with persons deriving their income from "trade," and in such a case the advantages of the business traditions of the family must soon disappear.

The greater privacy of private partnerships may be more advantageous for the preservation of trade secrets, but with proper precautions the same result may be secured by a company.

The risks and disadvantages of trade being carried on by companies as distinguished from private partnerships have been frequently discussed. In a company there is nobody whose personal honour is affected by failure, and the persons who have a directing voice in the management do not necessarily suffer from the consequences of their carelessness or recklessness, and may be even benefited by the disasters of their company. The risk attendant on this circumstance may be lessened by legislation (see JOINT STOCK COMPANIES), and also by the education of public opinion which hitherto has been much too lenient in respect of the deficiencies of company directors, except in a few conspicuous cases, in which there were sensational features of a special kind.

But whether it be for good or for evil, it must be clear to any intelligent observer that private partnerships and unlimited liability are rapidly disappearing, and under these circumstances it is hardly worth while to propose any legislative reforms of partnership law; but an act providing for the compulsory registration of firms, and thus enabling creditors to ascertain who at a given moment are the partners in the firm with whom they are dealing, would be of great advantage, and could be introduced without much difficulty. The introduction of "commandite" partnerships at one time much discussed by reformers of partnership law, would probably be without any practical effect; if there was any real want for this form of partnership it could be easily supplied by taking advantage of the above-mentioned provisions of C. A. 1867, § 4. In the event of company law being made more stringent, it will probably be desirable to find a special form of association to facilitate trading with limited liability without the necessity of the restrictions which would then be imposed upon the formation and management of public companies (see as to this, paragraphs 65 and 66 of the *Report of the Departmental Committee of the Board of Trade on the Companies Acts* published in 1895), and for this purpose the introduction of private partnerships with limited liability similar to those established under the above-mentioned German statute of 1892 would be convenient.

[As to continental law, see the art. "Sociétés Commerciales," *Continental Mercantile Codes*.—Also Troplong, *De la Société*.—Deloison, *Traité des soc. commerciales franç. et étrangères*, 2 vols. 1882.—Houpin, *Traité général théorique et pratique des Sociétés Civiles et Commerciales*, 2 vols. 1895.—Hergenhahn, *Das Reichsgesetz betreffend die Ges. mit beschr. Haftung*, 1895.—See also the articles under the heading: "Die Handelsgesellschaften" i. to iii. in Endemann's *Handbuch*, vol. i. pp. 310-357. As to English and Scotch law, see Lindley, *Treatise on the Law of Partnership*, 6th ed. 1893.—Pollock, *Digest of the Law of Partnership*, 6th ed. 1895.] E. S.

PARTNERSHIP, MEDIÆVAL. The modern practice of partnership has a threefold root in mediæval usage. (1) The oldest form of partnership in the middle ages took its origin from Italy, and was known as *commenda*. This implied the handing-over, for a particular voyage or enterprise, of goods or money by one person who remained at home (*commendator, socius stans*) to another who undertook the management of the business (*commendatarius,*

tractator). The *commendatarius* was commonly rewarded with one-fourth of the gain. In the later centuries, the *commendatarius* usually contributed capital himself, and acted on behalf of a number of *socii stantes* or sleeping partners. It was in this way that most commercial undertakings were conducted which involved considerable capital; and the practice survived in the *société en commandite*, so general to-day on the continent of Europe (see COMMANDITE, SOCIÉTÉ EN).

(2) The joint household of brothers, relatives, or friends, "eating one bread" (*companis*), and engaged in the same industry, was apparently the direct parent of the ordinary private partnership of modern England and the *offene Gesellschaft* of modern Germany, and seems to have given them the characteristic of unlimited liability which distinguishes it from the *société en commandite*.

(3) The mechanism of the modern joint-stock company, however, may be traced back in large part to the GILD. The earliest joint-stock companies, like the English EAST INDIA COMPANY, had in every respect, *except* the joint-stock, the same organisation as the earlier companies of "adventurers" in foreign trade. These latter were modelled on the great town "crafts" or "companies," like those of the mercers or grocers; and these, in their turn, had but followed the example of the earlier merchant and craft gilds. In all these, though there was a small fund for certain common religious and social purposes, and various restraints were imposed on the economic action of members, each member traded on his own account and with his own stock. Even the East India Company began with a joint stock only for each voyage, and did not for some years create a permanent joint stock. The introduction of a joint stock was immediately due to the lessons of experience, but the forms adopted for the purpose were probably influenced by contemporary practice in the matter of government loans (see also PARTNERSHIP, LAW OF; and PARTNERSHIP, HISTORY OF).

[The most complete information on the subject will be found gathered together in the *Universalgeschichte*, forming vol. i. of L. Goldschmidt's *Handbuch des Handelsrechts* (new ed. 1891), where are also given abundant references to the literature. Among recent special monographs should be mentioned W. Silberschmidt, *Die Commenda in ihrer frühesten Entwickelung* (1884), M. Weber, *Zur Geschichte der Handelsgesellschaften im Mittelalter* (1889), and F. G. A. Schmidt, *Handelsgesellschaften in den deutschen Stadtrechtquellen* (1883). On these works is founded the account in Ashley, *Economic History*, vol. i. pt. ii. § 67. See also Parsons, *Principles of Partnership* (Boston, 1889), §§ 2, 3, 26; Troplong, *Du Contrat de société* (1843); Frignet, *Histoire de l'association commerciale jusqu'aux temps présents* (1868).] W. J. A.

PARUTA, PAOLO (1640-1698), a Venetian nobleman; a clear-headed political writer and historian of the Venetian republic. His work, *Della perfettione della vita politica*, discusses wealth, and, in opposition to socialistic views, defends private property.

Whilst other authors of his day considered wealth solely from a moral point of view, Paruta recognised also an economic side to it. He does not confuse the desire for wealth with the unrestrained longing to accumulate, nor is he biassed by preconceived ideas of ascetic morality which other writers of his day had inherited from the canonists (see CANON LAW). He considers man's desire to live and to improve his social position to be a right desire based on natural instinct. Therefore, that which other writers of his time condemned, Paruta considered only human and moral.

In the work we quote, Paruta defends private property, combats communism, and shows the impossibility of absolute equality, confuting the numerous writings, the outcome of the sad conditions of the times, which advocated reform based on communism. The law-giver, says Paruta, cannot equalise the wealth of citizens, because this would destroy liberality. It would not be reasonable that the most worthless citizen should be on the same level for wealth as the worthiest. This happens even now, he observes, but being due to chance and not to the law, is more easily tolerated. It would, in any case, be impossible to preserve equality if it were established, and it would necessarily bring about the community of goods and children, upheld by Plato, and lead to most serious troubles.

The real remedy, according to Paruta, is to distribute honours and taxation so that all may share in them according to their status, while educating all citizens to make a good use of their wealth, and abolishing gambling, usury, and all useless occupations. Further, while Paruta defends property, he objects to excessive concentration of possessions.

Della perfettione della vita politica di M. Paolo Paruta, nobile Vinetiano, Venetia, 1599.

[See Cossa, *Introduzione allo studio dell' economia politica*, Milan, Hoepli, 1892.—Supino, *La scienza economica in Italia dalla seconda metà del secolo XVI. alla prima del XVII.*, Loescher, 1888.] U. R.

PASCOLI, LEONE (18th century). Born in Perugia, an abbé and a considerable writer on economic subjects, too soon forgotten. In his book, written 1728, published anonymously 1733 at Perugia, untruly dated from Colonia, Pascoli anticipated the economic financial reforms attempted later by Pius VI. in the papal states.

Pascoli follows BOISGUILBERT, deriving from him the title of his principal work, and proposing protection for agriculture, but he does not absolutely repudiate mercantilism, his leanings towards which are shown in his

monetary policy which was designed to cause more coin to be brought into the country than left it. To secure this, trade was to be fettered, that the nation might preserve its economic independence and not waste its money on luxuries.

Pascoli's work has special regard to the condition of the pontifical states which he sought to improve. He proposes plans to raise agriculture and industry again to a flourishing condition, and he discusses the supply of food, trade, coinage, and finance. Free trade internally, free export of agricultural produce to foreign countries, simplification of the system of taxation, constituted the basis of the economic organisation suggested by him. To restore prosperity to agriculture, he proposed to re-establish the ancient privileges granted to cultivators, to release them from all taxes, and to prohibit the import of foreign cattle. He studied the best methods of rendering the Roman Campagna healthy, and maintained that the state should compel landowners to execute sanitary works. He advocated proportional taxation and special taxes to provide relief for the poor, similar to the English system, prohibition of the export of raw materials, and taxation of imported manufactures.

The title of Pascoli's book is, *Testamento politico di un accademico fiorentino, in cui con nuovi e ben fondati principii si fanno varii e diversi progetti per istabilire un ben regolato commercio nello stato della chiesa*, etc., Colonia, 1733.

[See, concerning Pascoli, Cossa, *Introduzione allo studio dell' economia politica*, Milan, 1892.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 2nd ed., Palermo, 1896.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, 1884.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.]

U. R.

PASHLEY, ROBERT (1805-1859), barrister-at-law, afterwards Queen's Counsel. In 1833-34 he visited Greece and Asia Minor, and on his return published his *Travels in Crete* (2 vols. 8vo, Cambridge, 1837), a work which was much valued for the statistical knowledge it contained.

Pashley is best known to economists as the author of *Pauperism and Poor Laws* (London, Longman and Co., 1852, 1 vol., 8vo), a work in nineteen chapters, which treats of the subject under the following heads:—The number and cost of paupers in England, and in the metropolis; the pauperism of the agricultural and manufacturing districts; ecclesiastical provision for the poor till the Reformation; pauper legislation before and during the reign of Elizabeth; the relief of the poor from the reign of Elizabeth till the restoration of Charles II.; the statute of Charles II. for the removal of the poor; pauperism from the reign of Charles II. till the end of the 17th century; pauperism and the poor laws of England during the 18th century; the same from 1800-1834; the pauper legislation of the year 1834; the pauperism and poor laws of England since the passing of the Poor Law Amendment Act in 1834; the effect of the law of settlement on the dwellings of labourers in agriculture; on the necessity of a total repeal of the law of settlement and removal of the poor; the remedy by abolishing removals and substituting relief in money; proposed remedy by union settlement and union rating; other proposed remedies; the author's proposal, which was "that the law of settlement be wholly repealed, that the various provisions for raising and administering relief to the poor be consolidated into one statute; that the yearly sums needed for such relief continue to be raised by parochial rates on real property; that two-thirds of this sum be raised by a pound rate equal throughout the whole country; and the remainder by a further pound rate, raising in every parish a sum equal to one-third of the actual expenditure of such parish (ch. xix. *Pauperism and Poor Laws*).

Pashley also published *Observations on the Government Bill for abolishing the Removal of the Poor* (2nd ed. revised, London, 1854, 8vo).

A. L.

PASLEY, LIEUT.-GENERAL Sir C. W., R.E. (1780-1861), wrote:—*Observations on the Expediency and Practicability of Simplifying and Improving the Measures and Weights and Money used in this Country without materially altering the Present Standard* (8vo, London, 1834).

As the result of his investigations Pasley was made a member of the commission of scientific men, appointed in 1838 to report on the steps to be taken for the restoration of the standards of weight and measure consequent on the destruction of the standard yard by fire at the House of Commons. Pasley assisted in drawing up the report issued in 1841, and in his capacity of commissioner proposed the adoption of the DECIMAL SYSTEM of coinage, preparatory to the introduction of a similar scale of weights and measures.

In his *Plan for simplifying . . . the weights, measures, and money of this country*, a paper read before the British Association at Cheltenham, 12th Aug. 1856, and published 1857, Pasley gave in detail tables of the proposed new measures of length, surface, solidity, capacity, and weight—and (ch. v.) of the new monetary system. He stated the difficulties urged as objections to the proposed decimal coinage; and showed their groundlessness (ch. vi.). In ch. vii. he detailed the advantages of the new system; and, in the last chapter, discussed the objections to the French metrical system: "that it has proved an entire failure as regards astronomy and navigation, and that, instead of proposing uniformity, it has caused greater confusion in the weights and measures of France than ever prevailed before" (ch. viii.).

He also wrote much on military subjects.

A. L.

PASSE-DEBOUT (Fr.). The permit delivered to the carrier of provisions or merchandise passing through a town in which octroi duties

are levied, in transit for a locality outside the limits of the place, or on their way to a market inside the town, and to be taken back if unsold. The amount of the dues is deposited at the gatehouse on entering, and is reimbursed on presentation of the *passe-debout* on leaving. If the amount of the octroi tax is large the escort of an officer from one extremity of the town to the other may be obtained on payment of a fee in lieu of the deposit of the duty. Goods remaining more than twenty-four hours must be lodged in a registered warehouse.

T. L.

PASSENGER DUTY. See TAXATION.

PASSY, HIPPOLYTE PHILIBERT (1793-1880) born at Garches-Villeneuve near Saint Cloud, died in Paris. He was born on the very day of the execution of Marie-Antoinette (16th October), his father being in prison as a "suspect," and his mother in hiding. He began life as a soldier—left his military school in 1811, and took part in the Russian campaign as a cavalry officer. He was wounded on several occasions, and on one even left for dead; but he took part in 1814 in the defence of Paris at Montmartre. Leaving the profession of arms, he sailed for the United States. During the voyage the *Wealth of Nations* fell, by chance, into his hands. To pass the time he read the volume, and thus became an economist. His fine intellect served him well in the many high offices he afterwards held. Meanwhile, after his return from America he occupied himself for some ten years in cultivating an estate which he had inherited near Gisons (Eure), and his mind became matured by experience while he enriched it by study. As editor of the *National* of Armand Carrel he was appreciated as he deserved by the able men of various descriptions whom the revolution of 1830 brought to the surface. The district of Louviers returned him to the chamber of deputies. He was minister of finance from the 10th to 18th November 1834 (ministry of Bassano), then minister of commerce from 22nd February to 7th September 1836 (ministry of Molé), minister of finance again from 12th May 1839 to 29th February 1840 (ministry of THIERS). In 1844 he was raised to the chamber of peers. After the revolution of February 1849 had overthrown the monarchy, he became a member of the constituent assembly and afterwards of the legislative assembly; finally, the president of the republic, Louis Napoleon, made him minister of finance on 20th December 1848. He retained this post till 30th October 1849, the date when the prince-president began distinctly to modify his policy. It was during this last occasion of his holding office that he unsuccessfully proposed to levy a tax on the rent of house property as a practical solution of the income-tax. The *coup d'état* definitely put an end to his political career, and from that time he gave himself up absolutely to economic science. He entered the Institute (*Académie des Sciences morales et politiques*) in 1833 as correspondent, and in 1838 as member. He prepared in that capacity many reports, among which may be noticed a paper in 1878, *De l'histoire dans ses rapports avec les sciences sociales et politiques*. A member of the economic society from 1844, he became its second president in 1845, and, on the death of Ch. Dunoyer in 1862, the first president. He was one of the founders of the statistical society of Paris in 1860, was vice-president in the second year, president in 1868, and honorary president after 1873. In all these learned societies his opinion had great weight; this was due both to his force of character and to his twofold gifts as a thinker and a practical man.

Passy wrote, besides his political works: *De l'aristocratie considérée dans ses rapports avec les progrès de la civilisation*, 8vo, 1826.—*Des systèmes de culture et de leur influence sur l'économie sociale*, 8vo, 1st ed. 1846, 2nd ed. 1853.—*Des causes de l'inégalité des richesses*, 18mo, 1849.—*Des formes de gouvernement et des lois qui les régissent*, 8vo, 1st ed. 1870, 2nd ed. (The author supports a constitutional and parliamentary monarchy.)

A. C. f.

PATENT AND PATENT LAW.

Patent, p. 74; Historical Observations on Patent Law, p. 75; Specification of Invention, p. 75; Requirements as to Validity of Patent, p. 75; Ditto as to Person of Patentee, p. 75; Investigation by Patent Authorities prior to Grant of Patent, p. 76; Duration of Patents, p. 76; Regulations as to Fees, p. 76; Provisions for insuring working of Invention, p. 76; Provisions for insuring benefit of inventions useful for public purposes to Government Authorities, p. 77; Patent Journals and Patent Libraries, p. 77; International Arrangements, p. 77.

Patent is the name for a grant by the government of a country of a privilege enabling the patentee or his licensees to "make use and exercise and vend" the invention, and to restrain any unauthorised person from using or imitating it. A patent is always granted for a limited time and a limited area.

Some economists of authority, among whom PRINCE SMITH (*q.v.*) holds a prominent place, maintain the proposition that the grant of patents is detrimental to the public welfare, but there is now a general consensus of opinion in the opposite direction, it being recognised that it is not only just that inventors should, within certain limits, enjoy a personal benefit from their inventive skill and labour and outlay, but that it is also beneficial to the community that inventions should be encouraged and made.

Modern patent law has contrived numerous safeguards for the protection of the public, among which the limits of time, and the requirements as to publicity, are the most important. The effect of the law is to make the invention public property after the expiration of the patent, and an inventor who has reason to

believe that the secret of his invention can be kept, is in a better position if he does not apply for a patent.

It is worthy of notice that in most countries having a patent law there are certain provisions which are intended to insure that patented articles should be manufactured within the country in which the patent is granted. The granting of patents in this way acts as a protection to native industry.

Historical Observations.—It is generally said that patent law was first created by a passage in the statute of James I. abolishing MONOPOLIES (*q.v.*), which, by way of exception, reserved a right to the crown to issue "letters patent . . . for the term of fourteen years or under . . . of the sole working or making of any manner of new manufacture within this realm to the true and first inventor and inventors of such manufactures," and one of the best-known writers on the subject (Kohler in his *Deutsches Patentrecht*, on p. 26) is of opinion that the industrial pre-eminence of England is essentially due to this circumstance. It seems hardly safe to accept the dictum of a legal writer, however eminent, for a proposition of such startling character, and it must also be observed that the statute of monopolies did not create, but only restricted and regulated, the right of the crown to grant patents.

The exception in the statute of monopolies did not, moreover, entitle an inventor to the grant of a patent as of right, but left him dependent on the favour of the crown.

Its principal importance is due to the fact that, for the first time, it recognised a clear distinction between patents for inventions and other monopolies, whilst on the other hand the public interest, which would seriously suffer if patents were granted for an unlimited period, was safeguarded by the introduction of a time limit.

In modern law the right of every inventor, who complies with certain conditions, to enjoy a monopoly for a limited period is almost universally acknowledged, though in some countries (as, for instance, in Denmark, where the first Patent Act was passed in 1894 only) the recognition of this principle is of very recent date. The patent law of the United Kingdom is regulated by the act of 1883. Patent acts were also introduced in the following British colonies and possessions at various dates:—Barbados, British Guiana, British Honduras, Canada, Cape of Good Hope, Ceylon, Hongkong, India, Jamaica, Leeward Islands, Mauritius, Natal, Newfoundland, New South Wales, New Zealand, Queensland, South Australia, Straits Settlements, Tasmania, Trinidad, Victoria, Western Australia.

Specification of Invention.—The grant of a patent is always subject to the condition that the invention should be fully described by the applicant. This is made specially clear by the United States Statute, Rev. Stat., 1874, § 4888; and by the German Statute of 1891, § 20, which requires a description so explicit that experts may by its perusal be enabled to use the invention. The law of the United Kingdom allows a provisional specification to be filed in the first instance, which must, however, within nine months, be followed by a complete specification (Patent, etc., Act, 1883, §§ 5 (3); 8).

Requirements as to Validity of a Patent.—The limits within which inventions are patentable vary in different countries. Novelty, originality, and fitness for industrial purposes are required everywhere, and it is also the universal practice to exclude articles intended for unlawful and immoral purposes (see, for instance, Statute of Monopolies, § 6; French Statute of 1844, §§ 1 and 2; German Statute, § 1; Austrian Statute of 1897 (which will come into force in 1900), § 1, but in some systems of law other articles are excluded as well as those just mentioned. Thus the French Statute (§ 3) excludes all medicines, and the German Statute (§ 1 [2]) excludes articles of food, articles intended for medical purposes, and all substances produced by chemical process.

Most patent laws protect *inventions* only as distinguished from *discoveries* (as to the meaning of the distinction, see Lord Justice Lindley's judgment in Lane-Fox *v.* Kensington and Knightsbridge Electric Company [92], 3 Ch. 424, 428, 429), but the French law protects discoveries as well as inventions (toute nouvelle découverte ou invention), excluding, however, plans and combinations relating to credit and finance (French Statute, §§ 1 and 3).

Requirements as to Person of Patentee.—In most countries patents are granted to the "true inventor" only, and in some (*e.g.* in the United States Revised Statutes, 1874, § 4892) the applicant must declare on oath that he is the true inventor; whilst in others, such as Austria (see Austrian Statute, §§ 29 and 4), the first applicant is presumed to be the true inventor until the contrary is proved. The expression "true inventor" is not, however, always construed literally. Thus, in the United Kingdom it includes (1) a person who, having, in a place outside the United Kingdom, become acquainted with an invention, not being part of the common knowledge in the United Kingdom, brings it over to the United Kingdom, and then takes out a patent; (2) an inventor forestalled by a prior inventor, who did not publish his invention so as to make it part of the common knowledge (see the judgment of Jessel, M.R., in Plimpton *v.* Malcolmson, 3 Ch. D. 351, 556).

The German statute (§ 31), with the view of discouraging delay in the fructification of useful inventions, puts the *first applicant* into the place of the true inventor, subject, however, to the right of an injured person, within a specified period (see § 23), to object to the grant on the ground that the essential part of the specification was taken from the descriptions, drawing, models, or appliances of a person other than the applicant, without the consent of such person. If the objector is successful, he may be put into the same position as if he had applied for the patent in the first instance.

In most countries patents are granted without regard to the nationality of the patentee (see, for instance, Patent, etc., Act 1883, § 4 (1); French Statute, § 27), but in Germany (§ 12) and Austria (§ 7) a patent is not granted to a foreign applicant unless he appoints an agent, residing in the country in which the application is made, with full powers to represent the applicant in all

proceedings relating to the patent. In some systems of law it is also provided that the subjects of foreign states must submit to the same disabilities in respect of the grant of patents as those imposed on foreign subjects in their own country (see, for instance, German Statute, § 12; Austrian Statute, § 31).

Investigation by Patent Authorities prior to Grant of Patent.—This is one of the points in respect of which considerable diversity prevails. In France a patent is granted without any examination as to the patentable character of the invention in respect of which it is claimed, or of the correctness of the specification ("Les brevets dont la demande aura été régulièrement formée seront delivrés sans examen préalable *aux risques et périls des demandeurs et sans garantie, soit de la réalité de la nouveauté ou du mérite de l'invention, soit de la fidélité ou de l'exactitude de la description*," § 11).

In certain other countries, among which the United States, Germany, Austria, and Hungary (statute of 1895) are the most prominent, a most elaborate investigation takes place not only in respect of the correctness of the description and all formal requirements, but also as regards the merit and originality of the invention, and generally as to its patentable character (United States Revised Statutes, § 4893; German Statute, § 21; Austrian Statute, § 55).

A second method of testing the validity of a patent adopted by the German and Austrian laws, is the publication of the details of the application for the purpose of enabling objectors to oppose the grant, which they may do within two months from the date of the publication (German Statute, §§ 23 and 24; Austrian Statute, § 58).

British Patent Law takes a middle course between the absolute non-interference of the French system and the full inquiry of the American and German system. The official examination is confined to questions as to the correctness of the description and the completeness of the specification (Patent, etc., Act 1883, §§ 7 and 9), but as in Austrian and German law the details of the invention are published (*ib.* § 10), and objectors have a right to be heard within two months from the date of the advertisement. Such objections are, however, restricted in their scope, and may not extend to every ground affecting the validity of the patent (*ib.* § 11).

It is possible everywhere to have a patent revoked or declared void on the ground that the invention was not patentable, but in Germany this right is barred after the lapse of five years from the date on which the grant of a patent was publicly announced (Patent, etc., Act 1883, § 26; United States Revised Statutes, § 4918; German Statute, §§ 28 and 29; Austrian Statute, §§ 28 and 29; French Statute, § 30); it should, however, be borne in mind that, in countries in which a strict examination takes place before a patent is granted, the risk of invalidity is, of course, much smaller. The vendor of a patent does not as a general rule guarantee its validity unless he expressly covenants to do so.

Duration of Patents.—The maximum duration of patents is fifteen years in France, Germany, and Austria, seventeen years in the United States, and fourteen years (but subject to extension as mentioned below) in the United Kingdom (French Statute, § 4; German Statute, § 7; Austrian Statute, § 14; United States Revised Statutes, § 4884; Patent, etc., Act 1883, § 17), but in France and in the United States the duration of patents for inventions previously patented in any other country cannot exceed the term of the patent granted in such other country (French Statute, § 29; United States Revised Statutes, § 4887).

In Spain, original and new inventions not previously patented in any other country are entitled to patents for the term of twenty years; if an invention has been patented in other countries at a date not more than two years prior to the date of the Spanish application, the maximum duration of the patent is ten years; and if an invention is not new or not original, the term of the patent may not exceed five years (Spanish Statute of 1875, § 121).

The United Kingdom is the only country in which an extension of the term of a patent may be obtained on petition. The petition must be addressed to the judicial committee of the privy council, who, if they are of opinion that the patentee, having regard to the merits of the invention in relation to the public, has been inadequately remunerated by his patent, may recommend an extension of the term for a further period not exceeding seven, or in exceptional cases fourteen, years (Patent, etc., Act, § 25, and see "*In re* Samey and Solvay's Patent [1895]; Appeal Cases 78). A similar rule formerly existed in the United States, but is now no longer in force (United States Revised Statutes, § 4924).

Regulations as to Fees.—The continuation of the validity of a patent is generally made dependent on the payment of certain fees. In most countries these fees are payable by instalments or annually. In some countries the early instalments are lower than the subsequent ones, for the purpose of enabling the patentee, in the case of a non-successful invention, to abandon the patent without having paid a large sum in fees, and on the other hand enabling the crown to profit by the success of a successful invention (Patent, etc., Act 1883, second schedule). The principle of progressive fees is carried out most consistently by the German Statute (§ 8). Power is given in most countries to remit the fees in appropriate cases (Patent, etc., Act 1883, § 24 (2) German Statute, § 8).

Provisions for ensuring Working of Invention.—The granting of a patent may be a hindrance to industrial life, if the patentee, through want of energy or want of means, neglects to work his invention, whilst others, who would be willing and able to do so, are afraid of infringing his rights. A patentee may also take out a patent for the sole object of restraining competition with articles not manufactured in the country in which the patent is taken out, and thereby injure the trade of that country. Modern patent law tries to prevent such abuses in various ways. Thus in the United Kingdom the board of trade may compel the patentee to grant licenses on reasonable terms to any person showing that the patent is not worked in the United Kingdom, or cannot be used to the

best advantage, or that the requirements of the public cannot be supplied (Patent, etc., Act 1883, § 22); and in Germany and Austria the patent may, under similar circumstances, be cancelled altogether (German Statute, § 11; Austrian Statute, § 27). In Austria a compulsory license may also — subject to certain specified conditions — be obtained by an inventor who has so materially improved a previously patenteed invention, that, in consequence of such improvements, its industrial importance is materially increased. In such a case, however, the original patentee may in his turn obtain a compulsory license in respect of the improvement (Austrian Statute, § 21).

Provisions for ensuring benefit of Inventions useful for public purposes to government authorities. —The British statute (§ 27 [2]) provides that the authorities administering any public department may, on terms agreed upon between the parties, or in case of necessity to be fixed by the treasury, use any patented invention for the services of the crown, and similar rules exist in Germany and Austria (German Statute, § 1; Austrian Statute, § 21).

The German statute also provides (§ 23) that in the case of applications for patents on the part of the imperial authorities in connection with the purposes of the army or navy, a patent may be granted without the public announcement required in ordinary cases. In such a case the patent is not entered in the register (German Statute, § 23).

Patent Journals and Patent Libraries.—All patent offices publish periodical information on inventions, which, besides serving their immediate purpose, are also generally useful. The collections and libraries which in many places (*e.g.* in London) exist in connection with the patent office are open to the public.

International Arrangements.—An international congress for the purpose of securing the general protection of "industrial property" including patents was held at Vienna in 1873 and at Paris in 1878, and resulted in the formation in 1883 of a "Convention pour la protection de la propriété industrielle," to which the United Kingdom acceded on the 17th of March 1887 (by virtue of the powers conferred by Patent, etc., Act 1883, § 103). The United States and a number of other states, including France and Belgium, are members of the convention; but Germany and Austria have not joined, these countries having entered into a separate arrangement in 1891, and another arrangement having been made between Germany and Italy in 1892. The principal provisions of the convention of 1883 are: (1) that an applicant for a patent in any contracting state shall, if applying within six (or in certain specified cases within seven) months in any other contracting state, be treated as if his application in such other state has been contemporaneous with his application in the first-named contracting state; (2) that temporary protection shall be given to articles patenteed in any contracting state and exhibited at any officially recognised public exhibition in any other contracting state; (3) that an international office shall be established at Berne, and that a journal called *Propriété industrielle* shall be published at such office. The publication of the last-mentioned journal seems to be the most important result of the convention.

The British government has authority to enter into mutual arrangements relating to patents with any British colony (Patentee Act 1883, § 104).

The most complete collection of patent laws is the one published by Gareis, and continued by Werner, of which 7 vols. have hitherto appeared. Carpmael, *The Patent Laws of the World*, 2nd ed., 1889, is somewhat out of date now. Edmunds and Renton, *The Law and Practice of Letters Patent for Inventions*, 1890, gives a summary of foreign patent laws, but is also somewhat out of date in that respect. The latest statutes, besides the abovementioned Austrian statute of 1897, are a Russian statute (published in St. Petersburg in German), a Danish statute of 1894 (published in German in Berlin), and a Hungarian statute of 1895. E. S.

PATENTE (Fr.) A trade tax or license imposed on all persons in France exercising a trade, profession, or industry, unless specially exempted. The *patente* is distinct from the *license*, which is limited to a small number of trades, generally those under the supervision of the department of indirect taxes, corresponding to the English excise. Trades subject to the *license* usually pay the *patente* also. The *patente* was first established in 1791, when the trade corporations were abolished, and was a substitute for the dues paid by those bodies. It was at first a simple tax on the rental of the place of business and residence, and applied only to certain trades, but in 1798 it was extended and converted into a double tax—one fixed, the other proportional. A law of 1844 which forms the basis of the present legislation included all trades, professions, and industries with the exception of public functionaries, professors, writers, artists, the wage-earning classes, and certain petty occupations carried on without hired assistance. The fixed duty (*droit fixe*) is assessed on the nature of the trade or industry, and the population of the locality, increasing with the number of the inhabitants. The proportional duty (*droit proportionnel*) is based on the rental, and in addition, in some cases, on the number of hands employed. Certain trades, the importance of which cannot be estimated by the population or the rental, are taxed on their means of production, such as the number of spindles, looms, ovens, machines, etc., or, as for shipowners, the tonnage of their vessels. The taxes are combined so as to equalise the incidence as far as possible between the different trades, as some of the most lucrative are carried on in small offices or workshops, while others, in which the profits are small, require extensive premises. For the application of the fixed duty all trades and professions are divided into eight classes. In the highest, the rate in Paris and towns with a population of over 100,000, is 400 francs (£16), descending gradually to 35

francs (£1 : 8 : 4) in localities with less than 2000 inhabitants. In the lowest class the limits are 12 francs (9s. 10d.) and 2 francs (1s. 8d.). The liberal professions subject to the tax, such as those of architect, solicitor, barrister, doctor, etc., pay only a proportional tax of one-fifteenth of the rental. Persons carrying on several branches of trade in the same building formerly paid only on that on which the tax was the highest; but a law passed in April 1893 with the view of protecting small shopkeepers from the competition of the great stores, created special taxes for those employing more than 200 hands including clerks, assistants, buyers, porters, etc., which are made to pay on each branch or speciality not exceeding sixteen in number; the tax on the number of hands employed was also made progressive, commencing at 25 francs per head for the first hundred, and increasing 10 francs (8s. 11d.) per head for each hundred beyond that number, so that with 2000 hands the last hundred pay 215 francs (£8 : 8 : 4) per head, and with 3000 315 francs (£12 : 8 : 4). This aggravation of the tax was intended to reach two or three well-known business centres in Paris.

Persons having several separate establishments of the same or different kinds pay the *patente* for each. The proportional tax on the rental is generally from 5 to 10 per cent, but in some cases it rises to 15 per cent, or descends to 2 per cent. If the proprietor does not reside on the premises his separate habitation is taxed also. The classification of trades and professions is revised every five years, to include the new ones which may have sprung up in the interval. The list is, however, very comprehensive, and contains about 1500 different occupations. The new are assimilated provisionally to the one they approach the nearest. The *patente* produces about £5,000,000 annually.

[Edouard Vignes, *Traité des Impôts en France.*—Maurice Block, *Dictionnaire de l'Administration.*—Duvergier, *Collection des Lois.*] T. L.

PATERSON, THOMAS (1828-82), wood carver, lecturer, and organiser of workmen's clubs, wrote—

A New Method of Mental Science with applications to Political Economy, published posthumously in 1886. His theory was that "in economical problems the physical and mental elements have to be differenced . . . if we apply to the physical and limited element reasonings only applicable to the mental elements or *vice versa* . . . we shall fail." Thus "labour" includes "force" and "plan": no limits can be set to the possible progress of plan. Possession is physical or mental: if the latter, it need not involve interference with other people's user, or the juristic idea of property. The modern employer was a labour-seller not a leader, and Paterson's ideal was "a co-operative society in which the fittest should lead, working as much for honour as for pay." J. D. R.

PATERSON, WILLIAM (1658-1719), merchant, was the founder of the BANK OF ENGLAND (*q.v.*) and author of the unfortunate Darien scheme (see DARIEN COMPANY). He was a vigorous opponent of inconvertible paper money, and appears to have suggested the SINKING FUND (*q.v.*) of 1717. His scheme for the redemption of the debt was pronounced by the *Economist* (October 23, 1858) "faultless." He was one of the earliest advocates of free trade, as opposed to the mercantile system. "There is not any one part of trade but might and would prosper better without than in a monopoly." "Trade is and will be capable of increasing trade, money of begetting money, and one improvement of making way for another, till the end of the world." His proposal for a council of trade is in several respects noteworthy. Among the powers to be given to this body were "to hear and determine all causes . . . relating to trade . . . by the law merchant and that of the sea": to purchase and build workhouses and granaries: to have power to add unto, or allow 10 per cent to, the joint stocks of all companies . . . for manufactures . . . and generally to give such other encouragements . . . as they shall think requisite for . . . promoting and enlarging trade and industry." Paterson further proposed that the punishment of death in cases of theft shall be changed to "the payment of fourfold," and that all "bribery, cheating . . . wilful bankruptcy or fraud" should be punished as theft. He strenuously opposed any tampering with the coinage. "Thus it happened: we tacitly determined, by our general practice, that a clipped coin was of equal value to an unclipped one . . . and so, being content to take halves for wholes, were put upon accordingly. If the disease be the inequality of our coin, the remedy must consist in its equality." He held enlightened views on the self-government of colonies, and proposed to found a public library for books on trade. He was ruined by the failure of the Darien company, but received, in 1715, a parliamentary grant of over £18,000. Paterson's memory and works were rescued from prejudice and obscurity by the indefatigable labours of Mr. S. Bannister.

The Writings of William Paterson with Biographical Notices, by S. Bannister, 3 vols., 2nd ed. London, 1859, 8vo, contain his authentic works. These include, *Central America in 1701* (publ. by Bannister 1857).—*Proposals of a Council of Trade*, 1701, 12mo.—*A proposal to plant a Colony in Darien*, 1701.—*Dialogues upon the Union at the Wednesday Club in Friday Street*, 1706 and 1717. The latter are also *Upon the redemption of the National Debt and Taxes.*—Bannister ascribes to Paterson *Letters to J. Locke on Remedy for Diseases incident to Coin*, 1696, but throws doubt on the *Conferences on the Public Debt by the Wednesday Club in Friday Street*, 1695, mentioned by M'Culloch in *Literature of Political Economy*. The account of the proceedings in

connection with the establishment of the Bank of England is in the 1717 pamphlet, pp. 63-73 of vol. ii. of *The Writings, etc.* See also *The English Historical Review*, vol. xi. p. 260, art. by W. A. Steel. H. E. E.

PATRIZI, FRANCESCO (1412-1494) born at Siena, became bishop of Gaeta, where he applied himself to study.

He was a contemporary of CARAFA, and may be included among the humanists (see HUMANISM); but he made no original contribution to political science. He repeated the theory of ARISTOTLE without enriching it. He recommends protection for merchants and tradesmen, the latter of whom, also according to him, contribute to the enriching of a country; no protection at all however, he argues, should be granted to the importers of articles of luxury. He considered that the state should provide the means of subsistence for the population, and proposed the institution of prefects to preserve the corn in the public granaries (see GRENIERS D'ABONDANCE). Living in the kingdom of Naples, he naturally occupied himself with the much-debated question of the Royal DOMAINE (*q.v.*), maintaining the advisability of its maintenance; considering, however, that, for the advantage of agriculture, such *bona fiscalia* should be administered through the system of perpetual tenants.

De regno et regis institutione, Parisiis, 1519, 1534, 1567, etc.—*De institutione reipublicae*, Parisiis, 1518, etc. A. B.

PATRONAGE is the name for the right to appoint the holder of a public office. Such a right may be vested in the crown, in which case it is exercised on the recommendation of the minister to whose department the vacant office is subordinated, or in the holder or holders of some other office or offices, or it may be attached to the ownership of land. The right to appoint to offices held by laymen, which at one time was looked upon as a source of pecuniary emolument, is now—as a rule—exercised in accordance with definite general rules, and subject to the vigilant control of public opinion, and the word "patronage" is now generally used with respect to clerical offices only, and more particularly in relation to the appointment of parochial incumbents. While many livings are under the patronage of the crown, or of public or quasi-public bodies, who are supposed to exercise their right with reference to the merits of the candidates, there are many others as to which the right to appoint the parochial incumbent is vested in a private patron, being either the lord of the manor, or in the case of the right of patronage having been severed from the manor—in which case it is called an "advowson"—the owner of the advowson, who may reserve the appointment for relatives or friends, or sell the next presentation during the life of the actual incumbent, and, on the living becoming vacant, appoint the purchaser's nominee, unless the vacancy arises through the selection of the last incumbent for a bishopric, in which case the patronage is, *pro hac vice*, vested in the crown.

The sale of the presentation during a vacancy is legally "simony," and therefore unlawful; and it is also "simony" for the proposed incumbent himself to purchase the next presentation; but the sale of the next presentation to a third party, who may be a near relative of the proposed incumbent, is not condemned either by law or public opinion. Ecclesiastical patronage may therefore be a source of pecuniary profit. E. S.

PATRONAGE (in the French sense). Besides its general sense, this word in French is specially applied to institutions organised and in many cases directed by the heads of manufactures and mills, or by beneficent associations, to promote the moral and material welfare either of their own workmen, or of the working classes in general, discharged prisoners, destitute young girls, etc. These institutions take various forms, such as *patronages* affording facilities for the investment of small savings, or providing at cost price sanitary dwellings or food and articles of large consumption (called, in this case *économats*); the purpose of others is, the opening of places for healthy and moral recreation, etc. LEPLAY (*q.v.*) and his school have been the most energetic and convinced promoters of these institutions: as a matter of fact, most of them have worked satisfactorily both for men and masters. The latter now tend to recede as much as possible into the background, and to give up the management to the men themselves. Yet the masters are charged, in socialistic circles, with steadily aiming at the exercise of tutelary or rather of oppressive power.

[The *Rapport de la Section d'Économie Sociale* of the Paris exhibition of 1889 (2nd vol. 1890) gives information on the then existing *patronages*. See also the article *Patronages* in the *Nouveau Dictionnaire d'Économie Politique*, the collection of the *Réforme Sociale*, Leplay's *Réforme Sociale en France* (vol. ii. pp. 406-435, ed. 1867), and Fougerousse, *Patrons et ouvriers à Paris* (1880).] E. Ca.

PATRONUS. (1) The head of a patrician family, to whom persons attached themselves as dependent members of the family (*clientes*, see CLIENT), was their *Patronus*. (2) A master who gave his slave liberty by a legal act of manumission became thereby *patronus* of such freedman (*libertus*), a family relation of duty and protection being thus constituted between them. (3) Patronus may also signify a defender of the cause of another in a court of justice. E. A. W.

PAULETTE. The practice of raising a revenue by the sale of offices was introduced into France in the 15th century and became a regular system in the 16th century. Few financial expedients have proved more ruinous.

In the first place the income derived was casual and not regular, and the occasional windfalls were practically loans on which the payments to office-holders constituted an excessive interest. Thus the sale of offices gave rise to a disguised national debt contracted on very disadvantageous terms to the state. And the financial loss was by no means the only evil. In order to make the offices valuable it was necessary to give the holders a secure tenure, and so the crown had to abandon the power of dismissal. Thus the office-holders became independent, and the judges in the parliament of Paris and other sovereign courts, who had in early times been the strongest supporters of the royal power, became in the 17th and 18th centuries the most resolute opponents of the monarchy. An inevitable result of the practice of purchase was that the buyers began to look upon their places as private property. This was partially recognised by an ordinance of 1567, which allowed an official to transfer his office to another, provided that (1) the original holder survived for forty days after the bargain, and (2) the recipient paid a third of the purchase money to the state. In 1605 Sully, the great minister of Henry IV., took the final step in this direction. The members of the sovereign courts were allowed to hold their seats as private and heritable property on condition of paying annually to the state a sixtieth part of their value. This charge was called the *droit annuel*, but is more usually known as the *paulette*, because the collection of the charge was in the first instance farmed out to a man called Paulet. This innovation of Sully's was a financial reform, because it substituted a regular yearly income for the casual in-comings which resulted from the practice of sale. But, from the point of view of the monarchy, the political results were by no means equally satisfactory. By the institution of the *paulette* the magistracy was made into a close hereditary class, and thus its independence was greater than ever. This result was to some extent foreseen, hence the system was not at first made permanent, but was fixed only for a period of years. Thus the crown reserved some control over officials, and could threaten, in case of opposition, to put an end to the *droit annuel*, which would at once deprive them of the property in their seats. But the official classes clung tenaciously to a system which gave them such obvious independence. When, in 1648, the government tried to coerce the judges, by allowing the *paulette* to expire without renewal, the vigorous opposition of the parliament of Paris was one of the chief causes of the Fronde. And their opposition was so far successful that, with some few interruptions, the *paulette*, and the hereditary tenure of offices of which it was the symbol, lasted till the old *régime* was overthrown by the Revolution (FARMER-GENERAL; FARMING OF TAXES).

[Clamagéran, *Histoire de l'Impôt en France*, t. ii. p. 378, *et seq.*] R. L.

PAULUS JULIUS, a Roman prætor of the 3rd century. In the *Corpus Juris*, under the title of the Purchase-Sale (Dig. XVIII, i. 1) is inserted a law of Paulus, which explains the origin of exchange and specifies the function of money.

The Prætor says: "Origo emendi vendendique a permutationibus cœpit: olim enim non ita erat nummus: neque aliud *merx*, aliud *pretium* vocabatur: sed unusquisque secundum necessitatem temporum, ac rerum, utilibus inutilia permutabat. quando plerumque evenit, ut, quod alteri superest, alteri desit; sed quia non semper, nec facile concurrebat, ut cum tu haberes quod ego desiderarem, invicem haberem, quod tu accipere velles, electa materia est, cujus publica ac perpetua æstimatio difficultatibus permutationum, æqualitate quantitatis subveniret; æque materia forma publica percussa, usum dominiumque non tam ex substantia præbet, quam ex quantitate: nec ultra *merx* utrumque, sed alterum *pretium* vocatur."

The Italian economists of the last century discussed with much learning and heat the Roman ideas on money, its origin, and the functions of exchange —while PAGNINI maintained that the ideas of the Romans on money were altogether opposed to those of the economists of his century, Gian Rinaldo Carli and more fully Pompeo NERI showed that they were conformable to them. See also the monograph of Giulio Alessio on the conception of value in classical antiquity (*Archivio Giuridico italiano*, vol. xlii. Bologna, 1889); H. Cernuschi discussed it, showing that the conception of money as he explained it was entirely conformable to that of the Prætor Paulus Julius (*Anatomie de la Monnaie*, Paris, 1886, pp. 9-10).

See in the "*Corpus Juris Civilis romani*": Edit. cum notis integris Dionysii Gothofredi, Neapoli, 1828, Lib. xviii. Tit. I.—*De contrahenda emptione et de pactis inter emptorem et venditorem compositis et quae res venire non possunt. De origine emptionis, et venditionis, ejusque et permutationis differentia.—De nummis I. Quibus modis emptio contrahitur.*—I. Paulus, lib. 33, *ad Edictum.* A. B.

PAUPERIES is an expression used in Roman law for accidental injury caused to a person by an animal belonging to another, contrary to the nature of the animal. The party thus injured could claim from the owner of the animal damages for the injury, unless the owner preferred to surrender to him the animal which had done the mischief. This practice of surrender, which was applicable also in the case of injuries committed by children under paternal power and by slaves, had its origin in the primitive notion of vengeance against a person or thing that has been the cause of damage. But in course of time the master or owner of the guilty object was allowed to buy off such vengeance by payment of pecuniary damages (see Holmes, *Common Law*, Lecture I.). E. A. W.

PAUPERISM. The word "pauperism" is used in two senses. It is a state, that is a condition, and it is also the sum of paupers. In the first sense it is uniform, it follows a definition and consequently is always the same thing; in the second, it fluctuates from year to year, and from district to district. 1. In the first sense it is a legal term. The pauper in the eye of the law, and in the technical sense, is a destitute person, in receipt of relief administered under the poor law. He is a destitute person, and destitution implies an absence or want of the necessaries of life, food, clothing, shelter. Thus pauperism is clearly distinct from poverty. The poor man is one who, having the necessaries of life, falls short of some standard of comfort, whether that standard be determined by reference to some end, *e.g.* a sufficiency to lead a high type of life, or to the circumstances and average of the time. The rich man of one generation in one century may be the poor man of the next, but the necessaries of life are always the same, when interpreted in the sense of "enough to keep body and soul together." Now to these necessaries every member of the United Kingdom has a right at the hand of the state, a right which is secured to him by a series of acts, beginning with the celebrated 43 Eliz. c. 2. To meet this claim an elaborate machinery or organisation exists, composed of a central authority, now the local government board, and 637 local authorities, viz. boards of guardians with their several administrative officers. On these local authorities lies the obligation to provide for the destitute the means of subsistence, but the conditions under which they do so vary greatly, and will be discussed elsewhere (POOR LAW, ADMINISTRATION OF). The moment that a destitute person has been relieved he is a pauper, and as such suffers certain disabilities, *e.g.* the loss of the right to vote at elections, but no such disability attaches to the receipt of medical relief only. It is true that even government has not always been consistent in its use and interpretation of the terms destitution and pauperism. Thus in a circular of the local government board of the 25th of January 1875, we find it stated that the spirit of administration in workhouses has changed of late years in consequence of a change (i) in the circumstances of the time; (ii) in the character of the recipients of relief. This implies that workhouses are now expected to "move with the times," and to interpret the phrase "necessaries of life" in the light of the average standard of living at the present time. In other words, that destitution has ceased to be the test for the receipt of relief, and guardians no longer confine themselves to "measuring destitution" in the relief which they give. 2. In its other use, pauperism denotes the number of paupers in a country at a given time, a statement which clearly is subject to great variations. With the causes of these variations we need not here deal particularly, but merely remark that they include the state of trade and production generally, and the administration of the law itself among other factors. Pauperism and the amount of it may be reckoned on several bases, *e.g.* the number of persons receiving relief during a given period, or the number of cases, or the number for a given day. For the purposes of comparison it is clearly indifferent which is adopted, provided that the same basis be taken at the two periods, but for the purpose of particular inquiries the distinction is most important. Again the cost of pauperism must often be taken as an index to its amount, in the absence of more accurate statistics. Roughly, the pauperism of England has shown a tendency to increase and decline over certain long periods. From 1601 to a point which may be put at 1750, pauperism on the whole diminished. Thus the cost of maintaining the poor fell from £819,000 in 1698 to £619,000 in 1750, in spite of an increase in population. From 1750 to 1817 the growth of pauperism was rapid and great, the cost rising from £1,912,000 in 1785 to £4,077,891 in 1803, and to £7,810,801 in 1817. From this year onwards a decline takes place, slow at first but more rapid after the passing of the new poor law in 1834. Thus in 1849 the paupers in England and Wales were 6·3 per cent of the population; in 1860, 4·3. The American War raised the percentage to 5·3 in 1863, but by 1873 it had fallen again to 3·8, in 1883 to 3·0, in 1893 it stood at 2·5 and in 1896 at 2·6.

L. R. P.

PAWN, a pawn or PLEDGE (*q.v.*) is where possession of a personal chattel is delivered by one person to another as security for a debt. The general property remains in the pawnor; the pawnee takes the possession and the right to possess. The pawnee may sell the goods on non-payment of the debt after the time fixed for repayment has expired; if no such time has been fixed the pawnor must demand payment before selling. Where a sale takes place the pawnor is entitled to the net surplus after payment of the debt and all expenses. If the pawnor pays the debt he at once acquires the right to possess.

A distinction is drawn between a pawn and a MORTGAGE, of chattels. In the case of a pawn the pawnee acquires only a special or limited property in the goods; in a mortgage the whole property passes subject to a condition that on repayment of the debt the property will be reconveyed. A right of sale is incident to a mortgage of chattels.

A pawnee does not as a rule acquire any greater right to the chattel than that which the pawnor had; but to this principle there are some exceptions contained in the Factors Act

1889. Pawnbrokers are subject to special rules (see PAWNBROKING).

[Goodeve, *Personal Property*, London, 1892.—Turner, *Contract of Pawn*, London, 1883].

J. E. C. M.

PAWNBROKING. This expression denotes the professional lending of small sums on the security of a PLEDGE (*q.v.*). This kind of business, from its nature, is liable to great abuses, inasmuch as it may, if uncontrolled, be made a pretext for the habitual receiving of stolen goods; whilst honest borrowers may be subjected to cruel extortion. For this reason pawnbroking in most countries is either under public supervision or else entirely in the hands of public institutions (see MONTS DE PIÉTÉ).

In Great Britain the enactments relating to this matter were consolidated by the Pawnbrokers Act 1872 (35 & 36 Vict. c. 93), which requires any person who carries on "the business of taking goods and chattels in pawn," or who carries on any business which, though apparently intended for other transactions, is in effect a business for lending money on the security of goods and chattels—in so far as the loans are for less than £10—(1) to take out yearly licenses, which are not granted if the applicant fails to produce satisfactory evidence to character, or if his shop is frequented by thieves or persons of bad character; (2) to use certain prescribed books of account; (3) to exhibit his full name over the outer door of his shop, with the word "Pawnbroker"; (4) to exhibit, in a conspicuous place of his shop, certain regulations as to the conditions and terms on which loans are granted.

The act regulates these terms and conditions; but in the case of loans between £2 and £10, the statutory regulations do not apply if a special contract, the form of which is prescribed by the act, is made between the parties. As regards loans to which the regulations apply, a maximum profit is fixed as well as a minimum term for redemption; and the sale of unredeemed pledges is subjected to certain specified rules. In all cases a pawn-ticket must be handed to the borrower, and must contain particulars as to charges, time and condition of redemption, and other prescribed matters. A pawnbroker is not entitled to take articles in pawn from any person appearing to be under the age of twelve years, or to be intoxicated; he must not employ any person under the age of sixteen years as an assistant; and must not do business on any public holiday. There are, also, special provisions intended to make it more difficult for pawners to pledge goods entrusted to them or stolen by them, and to prevent pawnbrokers from taking such goods in pawn; and a pawnbroker who reasonably suspects any person of not being entitled to pawn an article offered as a pledge, may deliver such person and such article into the custody of a constable. A stipendiary magistrate, or any justices sitting as a court of summary jurisdiction, may order a pawnbroker at any time to produce his books and the papers relating to his business. Disobedience to any rule laid down in the Pawnbrokers Act subjects the person concerned to penalties, varying according to the nature of the offence. If a pawnbroker is convicted of fraud in his business, or of knowingly receiving stolen goods, the court before whom he is convicted may declare his license to be forfeited.

E. S.

PAYEE. The person to whom or to whose order the amount specified in a bill of exchange is payable. If a bill to order is not drawn to the drawer's own order some person must be named as payee.

[Chalmers on *Bills*, London, 1891].

J. E. C. M.

PAYMENT. The term payment primarily means a payment in money. A creditor is always entitled to have his debt paid in legal tender, and is not obliged to take a bill or cheque, or to allow a settlement in account. But "payment" is not a technical term, and it is held to include any settlement of a debt which is treated by the parties on a cash payment, though no money actually passes.

When a bill or note is taken in payment of a debt, the strong presumption is that it is taken as conditional payment only. In that case, if the bill or note is dishonoured, the creditor is remitted to his original rights, and can sue for the debt as well as on the instrument.

M. D. C.

PAYMENT FOR HONOUR. See HONOUR, PAYMENT FOR.

PEACE OF GOD. See TRUCE OF GOD.

PEACOCK, GEORGE (1791-1858), dean of Ely, was the author of an *Algebra*, the parts of which relating to the use of symbols may be consulted with advantage by the mathematical economist. Peacock's doctrine of the negative sign to represent debt has indeed been impugned by Mr. Macleod (*Theory . . . of Banking*, ch. iv. § 2, art. 18); but then Mr. Macleod's own doctrine has been impugned by COURNOT (*Revue Sommaire*). Those who agree with Cournot may employ in Peacock's defence one of the principles which he has enunciated: namely that the subtraction of a negative is positive. The refutation of an adverse criticism amounts to a rehabilitation.

JEVONS also (*Theory*, ch. viii.) has taken exception to the certainly inelegant representation of interest in Peacock's earlier treatise on algebra. The passage was withdrawn by the author from his second edition or version.

A more concrete contribution to political economy was made by Peacock in his review of the agriculture and land tenure of Madeira, which contains much interesting information and reflection; for instance with respect to the metayer system (see MÉTAYAGE).

There is also attributed to Peacock by the writer of his life in the *National Biography*, a pamphlet on the corn-laws (1846), in which it is argued that a free trade would not therefore be a regular trade, it being assumed that our domestic produce is sufficient for our

domestic consumption in two years out of three.

A Treatise on Algebra, 1830.—*A Treatise on Algebra*, 1842-45. — *Treatise on Climate and Meteorology of Madeira*, by J. A. Mason. (Part iv., a review of the agriculture and tenure of land, by Geo. Peacock), 1850.—*Upon the probable influence of a repeal of the Corn Laws upon the trade in Corn*, 1846. (Anonymous; contained in the library of the British Museum under the shelf marked 8245, d. 55).—*Answers to the Questions communicated by Lord Overstone to the Decimal Coinage Commissioners* (Decimal Association), 1857. F. Y. E.

PEARSON, CHARLES HENRY (1830-1894), historian, politician, advocate of land-taxes, and minister for education (1886-1890) in Victoria; wrote *National Life and Character, A Forecast* (1893), in which he prophesied that white men would leave the tropics and be squeezed into the temperate zone, and the squeezing process would fuse different classes in a state socialism which would sap church, family, and individual character, the latter being also menaced by big public debts, armies, and towns. The individual would wither and the race grow more and more, and the old age of the Aryan races, which had already set in, would be passed under "a gray sky." B. Kidd's *Social Evolution* (1894) criticised (p. 323) but resembled this book; both books lay stress on the moral and intellectual sense. Pearson thought that the mind could only postpone and mitigate, Kidd that it could make and avert destiny. Sociologists have written far less important books with far greater scientific pretension on the same subjects.

[C. H. Pearson, *Reviews and Critical Essays*, edited with Memoir by H. A. Strong (1896).—*The National Dictionary of Biography* (1895) *s.v.* "C. H. Pearson" enumerates and appraises his other works.] J. D. R.

PEASANT PROPRIETORS. It has been shown in the article on MORCELLEMENT, containing statistics of present landownership, that in France, the country in which, with Belgium, peasant proprietorship exists on the most extensive scale, this institution had existed long previous to the French revolution, though that movement gave it a considerable impetus. It may incidentally be observed that during the most prosperous period of the middle ages, say before the beginning of the Hundred Years' War, tenants in villeinage, so long as they paid their dues to the lord of the manor, whether in money or in kind, enjoyed legally the same security against ejectment as the 19th-century peasant owner who discharges his taxes punctually.

Three principal arguments have been directed against peasant proprietorship: 1st, it does not yield the same returns as farming on an extensive scale; 2nd, it generates low, parsimonious, and avaricious habits of mind; and 3rd, it depresses the birth-rate and interferes with the normal development of population. To each of these complaints a reply has been made: 1st, the return of corn grown by small peasants may be, and probably is, really inferior, but this inferiority does not appear in vegetable and orchard cultivation, which are important in our present agricultural system, nor in the cultivation of vines and such crops as tobacco. If sheep-breeding unmistakably requires extended areas, experience shows that breeding ordinary horses and cattle, as well as poultry, can be managed successfully on small holdings. 2nd, the debased state of mind discovered among the French peasantry by some writers, like Lady Verney in *How the Peasant Owner Lives*, has been grossly exaggerated, and their so-called low style of living is still far superior to that of day-labourers in many countries with large hereditary estates. 3rd, granting that peasant proprietorship acts to a certain extent as a check on population, prudential considerations are quite as prevalent among well-to-do farmers and the inhabitants of towns, and the birth-rate remains high in countries (like Belgium) with a considerable proportion of peasant ownership in land; on the other hand, over-population or *Uebervölkerung*, involving the existence of a miserable urban or rural proletariat, is an unmitigated evil.

Another objection, formerly more solid, is that small peasant proprietors, as a body, are addicted to routine and averse to scientific improvements; and that, even if they were willing to adopt the latter, their means are often insufficient to cover the necessary expenses. However, the diffusion of instruction has decidedly removed this hostility to progress, and association now enables French peasants to use, for instance, steam threshing-machines, and to found, in the east of France, under the name of *fruitières*, co-operative manufactories of cheese, working on the most approved principles; in other places the same organisation is adopted for making butter. If in southern France, after the invasion of the phylloxera, large wine-growers were the first to adopt scientific antidotes to this disease, their example has later on been followed by their smaller neighbours. Small peasant proprietorship is the most powerful incentive to labour; it affords the best opportunity of employing the whole family under the direction of its head, and strengthens family-life. In small and middle-sized farms owned by men working themselves, the "eye of the master" can better observe what is wanting than in very large farms; further, the owner is not tempted, as the farmer may be, to sacrifice the permanent qualities of the soil to gaining immediate but temporary profits; he husbands the fertility of his land, and shudders at the prospect of exhausting it. On

small occupancies, where he only grows corn for the use of the family, he is more independent of market fluctuations. Again, a large body of peasant proprietors affords a steady bulwark against political, and still more against social, turbulence, and, in fact, the leaders of French COLLECTIVISM, finding that it is expedient not to frighten this class of voters, have several times ostentatiously protested that they intended to respect the right of private property for small fields tilled by their owners; this respect, however, does not prevent jealousy of wealthier neighbours, so that this safeguard is not to be relied on absolutely.

To conclude, if some of the preceding remarks are alike favourable to peasant proprietorship and to cultivation by small tenant-farmers, this is not the case with all of them. Small tenants, especially tenants at will or for a very short term of years, are necessarily deficient in the feeling of independence and self-reliance, as well as in the incentive of future hopes, which are the most happy characteristics of the former system. Large and middle-sized ownership in land, as well as cultivation by affluent landlords, or by farmers possessed of the necessary means, may of course also be maintained; what is contended is that each mode of cultivation has its proper sphere of action, and that none ought to be indiscriminately rejected.

In former times, except by Francis Bacon in the essay on the *True Greatness of Kingdoms*, peasant proprietorship was rather looked upon with distrust in England. Though in his *Tour through France*, Arthur YOUNG admits that the magic of property suffices to turn sands into gold and rocks into scenes of fertility, he is a strong upholder of the English system of extensive estates, either cultivated by a rich landlord or by farmers provided with a large capital: "Deduct from agriculture all the practices that have made it flourishing in this island, and you have precisely the management of small farms" (*Eastern Tour*, vol. ii. p. 161). Malthus, inclining to believe that "all the great results in political economy depend upon proportions," admitted that "the division of landed property to a certain extent is of the utmost importance," but apprehended that the "owners of the minute divisions of landed property [in France] . . . must perish in great numbers in every scarcity," if "the effects (of this division) should not be weakened by the operation of an extraordinary degree of prudence in marriage" (*Principles of Pol. Econ.*, pp. 432-434, ed. 1820). Adam Smith, on the other hand, had observed that "a small proprietor, who knows every part of his little territory . . . is generally of all improvers the most industrious, the most intelligent, and the most successful" (*Wealth of Nations*, bk. iii. ch. iv.). But, excepting writers of democratical tendencies such as GODWIN (*q.v.*), English economists of high standing have mostly followed in the footsteps of Arthur Young. Nevertheless, towards the middle of this century, a reaction, initiated by and based on such works as Kay's *Social Education and Condition of the People*, Laing's *Journal of a Residence in Norway*, Howitt's *Rural and Domestic Life of Germany*, Thornton's *Plea for Peasant Proprietors*, etc., set in and found a powerful expression in the chapters devoted by J. Stuart MILL to peasant proprietors in the second book of his *Principles of Political Economy*. Since those days similar views are to be met in the collection of essays printed by the Cobden Club under the title of *Systems of Land Tenure in Various Countries* (1870), and have found another exponent in Professor Thorold ROGERS (see for instance *England's Industrial and Commercial Supremacy*, 1892, pp. 314 and 350).

On the whole, German economists may also be said to be favourable to small agricultural landowners; a general survey of the literature on the subject will be found in Roscher's *Nationalökonomik des Ackerbaues* (p. 197, ed. 1888). He himself declares that a judicious mixture of large, middle-sized, and small estates constitutes the economically soundest system for a nation (*ib.* pp. 188-189); see also "Bauerngut" and "Bodenzersplitterung" in Conrad's *Hdwb. der Staatswissenschaften*.

In France, the physiocrats, and especially the founder of the school, QUESNAY (*q.v.*), have been the only systematic admirers of the English system, on the principle that the *grande culture* yields much more than the *petite culture* (see the latter's articles "Fermiers," "Grains," and "Maximes Générales du Gouvernement Économique" in Quesnay, *Œuvres*); however Quesnay steadily assumes that corn is to be the leading produce of the *royaume agricole*. TURGOT also contends that the method of cultivation by rich farmers is the most advantageous; still he adds the proviso "supposing that the country be already a rich country" (§ xxvii. of the *Réflexions sur la Formation des Richesses*). Carried away by his admiration for the variety of the crops produced by the soil of France, MIRABEAU the elder, on the opposite side, advocated the extreme division of land: "How different the fertility of a small domain, which sustains a hard-working family, and that of huge estates abandoned to passing farmers or to lazy and indolent agents! . . . The subdivision of land cannot be pushed too far in a *canton*; this difference between the *tuum* and the *meum* . . . is the principle of vivification of a state" (*Ami des Hommes*, p. 46, ed. Guillaumin). Without going to this extremity, it may be broadly stated that from the first quarter of the present century, the great majority of French writers on agronomy have, like ROSCHER, looked favourably on small culture and peasant proprietorship co-existing with a due proportion of large and middle-sized agricultural estates, from Sismondi, *Tableau de l'Agriculture en Toscane* and *Nouveaux Principes d'Économie Politique*; Gasparin, *Des Petites Propriétés* (1821); De Barante, *Des Communes et de l'aristocratie* (1821); Hippolyte Passy, *Des systèmes de culture en France* (1846 and 1853) (see the appendix on the repartition of territorial property), to Lavergne's *Économie rurale de la France*; Baudrillart's *Populations agricoles de la France* (1885); De Foville's *Morcellement*, and the latter's and MM. Bernard's and Zolla's articles in the *Nouveau Dictionnaire d'Économie Politique*

(1892). Both sides of the question are ably summed up by M. Paul Leroy Beaulieu in his *Traité théorique et pratique d'Economie Politique* (vol. ii. pp. 1-30).

In Italy the flow of ideas has generally been in favour of peasant proprietorship down from the days of Verri (*Meditazioni sull' Economia politica*, 1771), and of Filangieri (ch. iii. and iv. of the *Leggi politiche ed economiche*, 1780). In our own days, Professor Achille Loria considers the constitution of exclusively small proprietorship in land resulting from the gradual disappearance of rent, to be the further and natural result of contemporary social and economic evolution (*La rendita fondiaria e la sua elisione naturale*, 1880).

[For further bibliographical information on peasant proprietorship in France, see the bibliography of MORCELLEMENT.] E. Ca.

PEASANTS' REVOLT. This rising, one of the most striking episodes in English history, is remarkable alike for the variety of causes which produced it; the mysterious character of its organisation; the widespread area which it affected; the absence of any unity, whether of purpose or of action, displayed by its leaders; and the many cries, political, religious, social and economic, to which utterance was given.

The immediate causes, the pressure of heavy taxation culminating in the levy of two poll-taxes, and the unpopularity of the government, were indeed political; but the deeper reasons are closely connected with the economic changes produced by the BLACK DEATH (*q.v.*). The scarcity of labour consequent on that pestilence led to many attempts to enforce more strictly the old agricultural services due from tenants, and possibly even to revert to them in cases where they had been commuted for money payments; while parliament tried to meet the emergency by stringent statutes regulating labour and the rate of wages. These measures were resisted, and the discontent, fanned by the teaching of Wiclifites and of friars, led to open rebellion in June 1381 upon the imposition of a second poll-tax.

The rising affected Norfolk, Suffolk, Cambridge, Essex, Hertford, Middlesex, Hants, Sussex, Kent, Somerset, Huntingdon (*Rot. Parl.*, iii. 111 *et seq.*); Devonshire (Knighton), Lancashire, York, Lincoln, and Durham were prepared to join, although we only hear of tumults at Beverley and Scarborough (Stubbs, ii. 489). Of the details connected with an organisation which embraced so wide an area, and was capable of simultaneous action, we know little. It was probably due, partly to the associations created to set aside the statutes of labourers (see LABOUR STATUTES), partly to the Wiclifites and friars whose wandering habits rendered them useful disseminators of information, and partly also to the discharged soldiers who had some experience of risings against authority in France and Flanders (Stubbs, *Const. Hist.*, ii. 491).

In Kent, where VILLEINAGE was unknown (Stubbs, ii. 489), and in London the movement was against heavy taxation and the misgovernment commonly attributed to John of Gaunt, but in the eastern counties the chief grievance alleged was that of villeinage. The insurgents demanded the abolition of villeinage and of tolls, a general pardon, and the commutation of villein service for a rent of not more than 4d. an acre. The attack was directed against landlords, both lay and clerical, and included the destruction of muniment rooms and documents, which preserved record of the obnoxious services (see SERVICES, PREDIAL AND MILITARY). The violence of the rebels at Bury St. Edmunds and St. Albans is graphically described by Walsingham (*Hist. Anglicana*, i. ii.; *Gesta Abbatum*, iii.).

The course of the rising is a matter of political history, and in this place it may be sufficient to note that it was quelled within a fortnight, and that the king (Richard II.) speedily revoked the charters of manumission and pardon conceded under the influence of panic, a measure subsequently approved by parliament (*Rot. Parl.*, iii. 100). The result must from the standpoint of the economic historian be regarded as a failure. Though villein service gradually died out, this was due, not to the rising, but to the influence of other forces, some of which had begun to operate before this time, although the change may have been accelerated by the difficulty of enforcing unwilling service. The history of the decay of manorial organisation has not been fully worked out, but it seems clear that as more profitable and more economical methods of working the land as pasture were widely adopted in consequence of a greater demand for native wool, the necessity for exacting the old services was lessened (see MANOR). In some cases villeins abandoned their holdings (F. W. Maitland in *Eng. Hist. Rev.*, ix. 425), attracted probably by more profitable openings in the towns, and thus the difficulty of maintaining the *status quo* on the manors increased. Under these circumstances commutation became general, and the villein became the copyholder as we know him in the 15th and 16th centuries; although from Fitzherbert's description (*On Surveyinge*, c. xiii.) and from isolated cases (Cunningham, *Growth of Engl. Industry*, i. 402, 533) it would seem that bondmen (see SERVUS) were still to be found in the 16th century, and even later, whose position differed but little from that against which the villeins of 1381 had made their protest (M. Kovalesky in *Archæological Review*, i. 444).

[Stubbs, *Constitutional History of England*, ii. (1880).—Cunningham, W., *Growth of English Industry and Commerce*, i. (1896).—Ashley, W. J., *Introduction to English Economic History*, pt. ii. (1893).—Powell, E., *Rising in East Anglia in*

1381 (1896).—Rogers, J. E. T., *History of Agriculture and Prices in England*, i. (1866),—Maitland, F. W., "History of a Cambridgeshire Manor," in *English Historical Review*, ix. (1894).—Fitzherbert, Sir A., *On Surveyinge* (1539).—Walsingham, Th., *Historia Anglicana*, ed. H. T. Riley (1863); *Gesta Abbatum Monasterii Sancti Albani*, iii. ed. H. T. Riley, 1869.—Kovalesky, M., "Villeinage in England during the first half of the 17th century," in *Archæological Review*, i. (1888).] B. A. M.

PECCHIO, GIUSEPPE (1785-1835). Was born in Milan, a member of a noble family; he held important offices, and was exiled in 1820 for his political opinions. He lived a long time in England. His name is known to students of the history of economics for his sketch of the history of political economy in Italy; this work was much read and appreciated, as is shown by several editions, and a translation into French; the success of the work was, however, perhaps beyond its merits. The author endeavours to condense into one volume the most important subjects in the large collection of Italian writers on economic matters, published at the beginning of this century by Baron Custodi. This collection was left incomplete, and Pecchio also did not finish his work. To expound superficially in a series of biographical and bibliographical sketches the lives and principal theories of a certain number of authors does not by any means constitute a history of the science.

Pecchio was also the author of another historical work on the finance of the first Italian kingdom.

Saggio storico sull' amministrazione finanziera dell' ex Regno d'Italia dal 1802 al 1814, London, 1822 (published in other editions).—*Storia dell' economia pubblica in Italia*, Lugano, 1829 (published several times, finally in Turin, 1852; translated into French, Paris, 1830). U. R.

PECQUEUR, CONSTANTIN (1801-1859), born at Arleux (Nord), died in Paris.

Originally a follower of SAINT SIMON, then of FOURIER, he did not definitely enrol himself in any school, preferring to follow his own bent, but by so doing he became entirely isolated. In his writings, while he aimed at, and even to some extent attained being practical, yet he tended more and more towards an ideal religious and mystic communism.

His first work, *Des intérêts du commerce, de l'industrie et de l'agriculture et de la civilisation en général sous l'influence des applications de la vapeur*, 2 vols. 8vo, 1st ed., 1838, 2nd ed. 1839, received a prize in 1838 from the Academy of Moral and Political Science. The originality and the not infrequent directness of insight of the work deserved this. In his second work, *Des améliorations matérielles dans leurs rapports avec la liberté*, 18mo, 1st ed. 1839; 2nd ed. 1847, Pecqueur evinces a more progressive and liberal spirit. This work, though antiquated, deserves to be read. Besides a pamphlet *Lettres à M. Dufaure sur les chemins de fer*, he wrote a large volume 8vo, published in 1842 under the title of *Théorie nouvelle d'économie sociale et politique ou étude sur l'organisation des sociétés*, in a more serious strain, and it is to be regretted that he did not act more in concert with the economists, his contemporaries, as Michel Chevalier did some years later, instead of waging war against the mistakes and prejudices of his time. After having written two works in which political economy only takes a second place, *De la paix de son principe et de sa réalisation*, 8vo, 1842, and *Des armées dans leurs rapports avec l'industrie, la morale et la liberté*, 8vo, 1842, he published, in 1844, *De la république de Dieu*, a small volume in 18mo, in which his Christian socialistic views are prominent. In 1849 he published a paper *Le salut du peuple*, which only reached a few numbers. His views, and the scientific value of his works, place him in an intermediate position between the socialists of his time and the economists of the liberal school. A. C. I.

PEDIDO. See MONEDA, PEDIDOS or SERVICIOS.

PEDLAR. Pedlars are persons who travel about from house to house offering goods for sale. They differ from hawkers in that the latter travel with horses. By the Pedlars Act 1871 (34 & 35 Vict. c. 96) a pedlar requires a certificate from the chief officer of police, but he is exempt from excise duty. A hawker pays £4 per annum for each horse employed. J. E. C. M.

PEEL, SIR ROBERT (1788-1850), statesman and financier, was the eldest son of the first baronet of the same name. He took a double first at Oxford in 1808, and the next year entered the House of Commons as member for Cashel. His prudence, tact, and general business-like qualities soon made themselves felt. In 1811 he became secretary for the colonies, and he held the office of secretary for Ireland from 1812 to 1818. Here he opposed the practice of selling public offices, and of dismissing civil servants for political action, and established the body of police afterwards consolidated into the Royal Irish Constabulary.

In 1818 Peel resigned office, but as a private member carried in the following year the first of his important economic and financial measures. Being appointed chairman of the committee on currency, which also inquired into the state of the Bank of England, he moved the resolutions which led to the resumption of cash payments (see BANKING). During the restriction of cash payments (1797-1821), the notes of the Bank of England had been at one time depreciated in value no less than 20 per cent, and were valued only at 16s. in the £1 as compared with gold. Peel's bill for the resumption of cash

payments was passed in 1819. It was to have come into effect in 1821, but its provisions were previously adopted spontaneously by the Bank of England.

In 1822 Peel re-entered the ministry as home secretary, but withdrew with the Duke of Wellington in 1827, when Canning became head of the government. On the death of the latter, the Wellington-Peel administration was formed. In 1828 Peel had created the metropolitan police force, claiming that by this act for indirectly preventing the increase of crime he was paving the way for a considerable mitigation of the criminal law. In November 1830 the government went out of office, having been defeated on a motion to revise the civil list.

Towards the close of 1834, William IV. dismissed his Whig ministers, and Peel became first lord of the treasury and chancellor of the exchequer. In April 1835 he resigned, having during his short term of office established the ecclesiastical commission.

While in opposition he was so powerful that one of his opponents declared "the right honourable member for Tamworth governs England."

After the defeat of the government in 1841 Peel came in at the head of his memorable administration. Fiscal reform was one of his chief aims, and in 1842, assisted by Gladstone, he brought forward his great scheme of a revised tariff. The country warmly welcomed the relief afforded in the reduction or removal of many items of taxation. But one part of the scheme was not so popular. Peel found himself compelled to establish an INCOME TAX on all incomes of £150 a year and upwards. This tax was not new; it had been imposed by W. PITT, and Peel urged that it was once more demanded both on grounds of national honour and of administrative prudence. The relief of taxation in other ways, however, was quite unparalleled, for out of 1200 articles comprised in the new tariff, the duties were reduced on 750. Peel still maintained the sliding scale of duties on foreign corn, but modified it by changes in the method of fixing the averages of prices, and by lowering the protection afforded on the different degrees of the scale to home-grown wheat. The maximum protective duty, which had been 27s. per quarter when home-grown wheat was under 60s. per quarter, was reduced to 20s., and was only to take effect when wheat was under 50s. After protracted debates the ministerial proposals were carried, and the public funds at once rose from 89 to 93.

In the session of 1844 Peel brought forward his measure for the revision of the bank charter. It was practically a reorganisation of the Bank of England (see BANKING). An act had been passed in 1833 which maintained the Bank of England in its privileges until 1855, with the provision that, ten years after the date of the measure, parliament might revise the charter. The ten years had now elapsed, and Peel produced a revised scheme, which was carried. The charter was renewed till 1st August 1855, or longer, if the debt due to the bank, £11,015,100, with interest, etc., were not paid after due notice; the issue department was established; weekly returns were required to be published; the issue of notes was limited to £14,000,000 on securities. Thus Peel had the satisfaction of accomplishing the monetary reform which he began in 1819. Events have not, however, entirely fulfilled his anticipations. Three times since 1844—in 1847, 1857, and 1866—a relaxation of the Bank Act has been compulsorily agreed to (see BANKING), although only on one of these occasions, in 1857, was the strict limit of the law overpassed. More than once important alterations in the measure have been proposed, though none as yet have been made.

Ireland was the next subject which occupied his thoughts. In 1843 Peel appointed the well-known Devon commission to inquire into the state of the law and practice with respect to the occupation of land in Ireland. The report presented in 1845 revealed for the first time the cause of the distressed state of Ireland.

Peel supported Sir J. GRAHAM'S factory legislation (FACTORY ACTS). In February 1845 his budget continued the income-tax calculated to produce £5,200,000, while in the customs duties, abolitions and reductions were effected amounting to £3,338,000. The alteration of duties on four articles—sugar, raw cotton, coal for export, and glass—occasioned a diminution in the revenue of £2,740,000. The import duties on 430 articles were entirely abolished, resulting in a loss of £3,500,000 (see CUSTOMS DUTIES). But after all reductions, there was still a surplus of £71,000 at the end of the financial year 1845-46.

Meanwhile, the much-agitated question of the corn laws was rapidly requiring a settlement. The potato famine in Ireland during autumn 1845, followed by many deaths, rendered cheaper corn necessary. Peel, deeply impressed by the condition of Ireland, proposed in the session of 1846 the gradual repeal of the corn laws, complete free trade in corn to take final effect after three years (see FREE TRADE). The minister was again acrimoniously assailed by his friends, and on the day that the corn law bill was passed in the Lords the government were defeated in the Commons. For a time the power of the Conservatives was annihilated—perhaps the most striking example in English modern political history of the success of a great economic principle leading to

the defeat of the political party which had supported it.

Peel resigned office, but while in opposition he cordially supported the new Whig government in their measures for practically abolishing the navigation laws, for relieving the Jews from their political disabilities, and for the promotion of popular education. Peel was not a brilliant orator, but he had great weight as a wise and sagacious party leader, and his personal character stood high. His services to the state were great and enduring, and if he was at times an opportunist, it was always with an eye to the national interests, and never from any desire for personal aggrandisement.

[Only Peel's economic measures can be dealt with here; for his other public measures see *Memoirs* by Peel, edited by Lords Stanhope and Cardwell.—*Life* by Viscount Hardinge and A. W. Peel (Speaker), edited by C. S. Parker.—*Biographies* by Cooke Taylor, Sir Laurence Peel, Lord Dalling, G. Barnett Smith, F. C. Montague, Justin M'Carthy, J. R. Thursfield, etc., the *Annual Register*, 1850; articles in the *Nineteenth Century*, the *Edinburgh* and *Quarterly Reviews*.—*Dictionary of National Biography*, the *Westminster Review*, etc.] G. B. S.

PELLS. The office of clerk of the pells, so called from the pells or sheepskins on which the records of the office were written, was one of the most ancient in the exchequer. The clerk of the pells was originally the Treasurer's own private clerk, and it was his duty to keep separate records of all moneys entering and leaving the exchequer. These records were kept on two rolls, called respectively the *pellis introitus* or Pells receipt roll, and the *pellis exitus* or Pells issue roll. On the former was entered every sum paid into the exchequer, with the receiving teller's name, copied from the TALLY, or in later times the teller's bill, as it was thrown down into the tally court; while all payments out, with the authority for making them, were similarly entered on the issue roll. The duties of the office remained essentially the same till its abolition on the remodelling of the EXCHEQUER in the present century.

[S. R. Scargill-Bird, *Guide to the Public Records*, London.—First report of the Commissioners of Public Records, London, 1802.] A. E. S.

PENNI (Finland). The hundredth part of the MARKKA (*q.v.*). F. E. A.

PENNINGTON, JAMES (1777-1862):

An economist, was the author of a paper on deposits with bankers, published in T. Tooke's *Letter to Lord Grenville on the Currency*, 1829, also of a letter further elucidating his opinions, to be found in Appendix C. of vol. 2 of Tooke's *History of Prices*, pp. 369-378. His views, expressed in 1827, contain the germ of the Bank Charter Act of 1844, but he was opposed to the separation of the departments of the Bank of England (BANKING; BANK NOTE). Pennington further published a pamphlet, addressed to Mr. Finlay, on *Corn Laws*, 1840, and a work of authority on *The Currency of the British Colonies*, 1848, 8vo.

[*Annual Register*, 1862, p. 390.—*Economist*, 19th April 1862.] H. E. E.

PENNY (English). The Anglo-Saxon penny was a silver coin, 240 of which weighed a pound (5760 grains), twenty-four grains, the weight of a penny being then, as at present, known as a "penny-weight." The origin of the term penny is obscure, but in all probability it was derived from *pendo* (*to weigh*). The word was variously spelt in Saxon and Norman times, *i.e.* penig, pening, penning, peneg, pending, etc.; its modern representatives being but slightly different: *English*, penny; *German*, pfennig; *Danish*, penge; *Finnish*, penni.

The successive alterations in the legal weight of the silver penny, from the time of the conquest onwards, as given by Ruding, are shown in the following table. The last silver penny coined for general circulation was struck in the reign of Charles II., after which time these coins were issued only as a part of the special moneys distributed on Maundy Thursday (see MAUNDY MONEY).

SILVER PENNY.

Reign.	Weight.	Value.	
		In silver 925 fine, at 5s. 6d. per oz.	In silver francs 900 fine.
	grains.	penny.	franc.
William I., 1066 .	22½	3·09	·299
Edward I., 1300 .	22	3·02	·293
,, III., 1344	20½	2·78	·270
,, ,, 1346	20	2·75	·266
,, ,, 1351	18	2·47	·240
Henry IV., 1412 .	15	2·06	·200
Edward IV., 1464 .	12	1·65	·159
Henry VIII., 1527	10½	1·44	·139
,, ,, 1543	10	1·37	·133
Edward VI., 1552.	8	1·10	·106
Elizabeth, 1601 .	7¾	1·06	·103

A gold penny was struck in the reign of Henry III. (1257), weighing 45 grains of fine gold. It was rated as the equivalent of twenty silver pence. Measured by the present gold standard (1 oz. = £3 : 17 : 10½) its value would be as much as 7s. 11½d.

The first copper penny, a piece weighing 1 oz. avoirdupois, was struck in the reign of George III. (1797) (see COPPER MONEY, ENGLAND).

[Ruding's *Annals of the Coinage*, 1840.] F. R. A.

PENSIONS.

Pensions, General Character, p. 88; Perpetual or Hereditary Pensions, p. 89; Civil Service Pensions, p. 89; Political Pensions, p. 90; Judicial Pensions, p. 90; Civil List Pensions, p. 90; PENSIONS, OLD AGE, p. 90.

A pension, according to Dr. Johnson's famous definition, was in England "generally understood to mean pay given to a state-hireling for

treason to his country." This would not have been true of the pension which Johnson himself subsequently received, nor of a considerable, though perhaps not the largest, portion of those granted in his time; it would not now be true of any. A modern pension is as much a payment for undoubted services as salary or wages, the difference being that pensions are paid in respect of *past*, salary or wages in respect of *present*, services. In England a certain number of persons in private employment, and the majority of persons in government employment, are remunerated partly by salary or wages, and partly by deferred pay in the shape of pensions. When, therefore, the conditions of service include a right to pension, the salary or wages must be assumed to be less than the full market rate, the difference representing the value of the pension.

The total cost of the pensions, and of gratuities in lieu of pensions, in the services of the crown in the United Kingdom, is known as the non-effective charge of those services. In the estimates presented to parliament for the financial year 1897-98, the proportion of non-effective charges was as follows, viz.:

	Total Charge.	Non-Effective Charge.
Army . . .	£18,140,500	£3,056,700
Navy . . .	21,838,000	2,130,100
Civil Services and Revenue Departments . .	34,295,972	1,382,297

Besides the amounts thus annually submitted to parliament, which is at liberty to vote or not to vote them without any breach of positive law, there are certain pensions, charged by statute on the consolidated fund, for judicial officers and certain others, whose independence is deemed to be better secured by this arrangement. The total amount issued for pensions out of the consolidated fund during the financial year 1896-97, was £123,261. A complete list of such pensions, with the names of the recipients, is set forth in the annual "finance accounts," published by authority.

Perpetual or Hereditary Pensions.—The British government formerly rewarded eminent public services by the grant of a pension, usually accompanied by a peerage, and payable not only during the life of the original grantee, but to his heirs for ever. Thus hereditary pensions were granted to the first Duke of Marlborough, to Lords Exmouth and Rodney, and to the brother of Lord Nelson (after the death of the latter at Trafalgar); payable in perpetuity to all heirs of the original grantees to whom those titles should descend. In the Stuart times royal favour was sometimes signalised in the same way. Thus hereditary pensions were enjoyed down to the present day by two peers, as the heirs of natural sons of Charles II. About fifteen years ago the late Mr. Bradlaugh, M.P., inveighed against these perpetual payments, and a committee of the House of Commons was appointed to enquire into the subject. A treasury minute presented to the House on 20th July 1888 (House of Commons paper 292 of 1888) sets forth the recommendations of this committee, and the extent to which they had been adopted by the government. Steady progress has since been made with the process therein indicated of commuting hereditary pensions, by arrangement with those interested, of course at a fair market value; and the only pensions now (1897) remaining, which have a currency beyond the lifetime of the present recipients, are those to the heirs of the Duke of Schomberg (£720), to Lord Rodney (£2000), and to Earl Nelson (£5000)—in all £7720, chargeable on the consolidated fund.

Army and navy pensions, or, as they are officially termed, *retired pay*, are granted by the secretary of state for war and the lords commissioners of the admiralty respectively, according to conditions prescribed by royal warrant for the army, and by orders in council for the navy. These conditions may be varied by the sovereign from time to time by amending warrants or orders in council, but so long as they remain in force they cannot be departed from in any particular at the pleasure of the executive. The retired pay of the officers, non-commissioned officers, and men of the army and navy depends on the rank attained by the recipient and on the length of his service, with special additions for wounds received in action, or for physical breakdown caused by the nature of the service. There is, also, a strictly limited number of special pensions for distinguished service, known as "good service pensions." No infirmity or unfitness for duty is necessary, as in the case of the civil service, to enable retired pay to be granted in early middle life, as the *men* are discharged on the completion of their term of engagement, while *officers* are automatically placed on the retired list on reaching certain ages, which vary according to the rank of the officer.

Civil Service Pensions are granted by the treasury under conditions prescribed by act of parliament. The acts dealing with the subject are very numerous; the principal are the superannuation acts of 1834, 1859, and 1887, especially the act of 1859 (22 Vict. c. 26). Of this act, which governs the great majority of civil service pensions, the main principles are as follows, viz. (*a*) pension only to be granted on the attainment of sixty years of age, or on the abolition of the office, or on an officer becoming permanently incapacitated, by infirmity of mind or body, for duty; (*b*) after less than ten years' service no pension to be granted, but a gratuity of a month's pay for each year of service; (*c*) for ten years service or upwards the rate of pension to be not exceeding one-sixtieth of the retiring salary or wages for each year of service, subject to a maximum of two-thirds of such retiring salary or wages; (*d*) the full rate of pension not to be granted unless upon a certificate from the authorities of an officers' department to the effect that he has served "with diligence and fidelity, to their satisfaction"; (*e*) any officer to whom a pension is granted under the age of sixty to be liable to serve again if required.

When a civil servant—an expression which includes, for pension purposes, such widely different classes as *e.g.* consuls, clerks, postmen, and workmen in dockyards—is injured, without his own default, on duty, and from some accident arising from the nature of his duty, the treasury is empowered by the Superannuation Act of 1887 to make a special addition on that account to his pension, or to award him a gratuity, by way of compensation, in cases in which no pension can be granted. If he dies from the injury, a pension can be awarded to his widow, or to his mother, if he leaves no widow, and if his mother was wholly dependent upon him.

All persons serving in public civil departments are not entitled, without distinction, to pensions. A considerable number are engaged at the full market rate of wages, without any pension rights. By the Superannuation Act of 1887 already referred to, the treasury is empowered, subject to certain conditions, to award gratuities to such persons, on the termination of their employment, at the rate of a week's pay, or one pound, whichever is greater, for each year's service.

Certain classes of pensions deserve special notice: (1) *Political Pensions*—These may be granted to persons having held certain high political offices, such as that of first lord of the treasury, chancellor of the exchequer, secretary of state, president of the board of trade, or any other of what are generally known as ministerial offices. The pensions are of three classes. A first-class pension is £2000 a year, a second-class £1200 a year, and a third-class pension £800 a year. The class of pension awarded depends on the office held, and on the length of service therein. No award can be made unless upon a declaration that the recipient's other resources are not sufficient to maintain his station in life. Only one political pension can be granted in any one year, and the total number in force at any time must not exceed four of each class. The awards are made by the treasury, under the political pensions act of 1869, and are charged upon the consolidated fund. (2) *Judicial Pensions*—Any judge, on completing fifteen years' service, or on becoming permanently incapacitated for duty, whatever the duration of his service, may be granted a pension equal to two-thirds of his salary, chargeable on the consolidated fund. (3) *Civil List Pensions*—These pensions are granted by the sovereign upon the recommendation of the minister, generally the first lord of the treasury, and paid out of a special sub-head of Her Majesty's civil list. The limit of pensions to be granted in any one year is £1200 per annum. Under the act 1 & 2 Vict. c. 2, § 6, the pensions are to be granted to "such persons only as have just claims on the royal beneficence, or who by their personal services to the crown, by the performance of duties to the public, or by their useful discoveries in science and attainments in literature and the arts, have merited the gracious consideration of their sovereign and the gratitude of their country." (4) *Old Age Pensions*—A movement has grown into prominence of recent years in favour of a system of pensions in old age for the whole community, or at all events for the less affluent majority thereof. No scheme has as yet been authoritatively propounded, though the question was referred to a committee of experts. The difficulties of the problem are gigantic. (See PENSIONS, OLD AGE.)

J. P. C.

PENSIONS, OLD AGE.

England, p. 90; Mr. C. Booth, p. 90; Modifications of Mr. Booth's plan, p. 90; Contributory Schemes, Canon Blackley, Mr. Jos. Chamberlain, p. 91; Germany, p. 91; Denmark, p. 91; France, p. 91.

England.—The case for some scheme of old age pensions can hardly be put more forcibly than in the words of the report of 1895. "It appears from existing statistics that nearly 20 per cent of the total population above the age of sixty-five receive relief in one day, and nearly 30 per cent in the course of one year. If, however, a deduction be made from the total population of those belonging to classes which are not likely at any time of their lives to be in want of relief, it is evident that the percentage of those actually relieved to the population below the well-to-do must be greatly increased." In order to meet this large amount of aged pauperism a number of schemes for state-aided or state-provided pensions for old age have been laid before the public.

Mr. C. Booth's Scheme.—The most complete and comprehensive of these is that suggested by Mr. Charles Booth. His proposal is, that, subject to certain limitations, every person, male or female, on attaining the age of sixty-five, shall be given for the remainder of life a sum of 5s. weekly, out of public funds. He contends that this amount will not be sufficiently large to discourage thrift, while the fact that it is offered to all alike on the single condition of having attained the age of sixty-five, will avoid the necessity of invidious and difficult distinctions between rich and poor, or deserving and undeserving. Moreover, unlike the contributory schemes, it will at once reach the class which is most in need of help. The first and most important objection to this scheme is its enormous cost. Mr. Booth himself admits that the annual expense in England and Wales would be nearly £18,000,000. If Scotland and Ireland were added they would reach £24,500,000, while the direct saving as regards poor-law expenditure upon the aged is not estimated at more than £2,000,000. These figures alone seem to place the scheme beyond the range of practical politics, even if it were free from the economic objections which have been raised against it. Morgover, the absurdity of paying 5s. a week to the wealthy is obvious, yet it seems impossible to draw a line which would not lead to that further separation of classes and masses which it is the main object of such a scheme to avoid. There are also minor objections, such as the difficulty of obtaining satisfactory proof of age, and the complicated and probably costly system of administration which so large an undertaking would involve.

Modifications of Mr. Booth's Plan have been suggested by Mr. Hardy and Mr. Leslie Probyn, who propose that the pension-right should be recognised only for the proved impecunious aged, or, Mr. Probyn's amendment, by supplementing the income of any acquired property up to some reasonable limit. The pension is estimated at 10s. a week, and the pensioner must be over sixty-five and must give up all work. The chief objections to this are that so large a pension, from which savings would be deducted, would materially lessen the stimulus to thrift, and that in all probability very few aged persons would work if they could obtain 10s. a week on the sole condition of not working. The first should be a fatal objection to any scheme, and the second seems to show that the expenses would be little less and the advantages scarcely greater than those of Mr Booth's plan. Other proposals have been made by Rev. Frome

Wilkinson and Mr. Bartley, M.P., but both involve an enormous amount of discrimination and investigation as well as very heavy expenses.

Contributory Schemes.—Canon Blackley had earlier (see 1887 *Inquiry*), advocated a scheme of compulsory insurance, by which all young persons from eighteen to twenty-one should be required to contribute to a state-collected or state-secured fund, a sufficient amount to entitle the contributor to a pension at some fixed age. In considering this, it is evident that a compulsory scheme must be universal, and that it is practically impossible to obtain contributions from those who are unemployed, or only in casual employment. It is also probable that such a scheme would be exceedingly unpopular with the working classes, even if the amount required were within their scope.

The most important of the contributory schemes is that associated with Mr. Jos. Chamberlain's name. This contemplates three classes of pensions. The first, a pension of 5s. a week, payable at sixty-five, is obtained by the payment of a lump sum of £2 : 10s. before twenty-five, and subsequent annual payments of 10s. for forty years. The state credits each contributor at 25 with a bonus of £10, both sums accumulate at compound interest and provide the annuity of £18 per annum at the age of sixty-five. Payments of the second class, which are twice as large, provide not only for the pension of 5s. but also for certain other benefits, of which the most important are payments to widows and children in case of death. The third case provides "that any person after depositing 30s. if male, 25s. if female, into the post office, and insuring in any society for £6 : 10s. or £3 : 18s. respectively, shall have his or her pension doubled at sixty-five by the state," and aims at securing the co-operation of the Friendly Societies. The main objections to Mr. Chamberlain's scheme are, (1) that it would not affect the classes which are most in need of help, and would merely act as a new form of insurance for those who are already able to provide for old age. (2) The scheme would have no direct effect for forty years, and if any measure at all is required it is one which can come into speedy operation. (3) The expenses of administration would be exceedingly heavy. (4) With regard to the third case, the friendly societies regard any scheme of state subvention with extreme suspicion, as likely to involve state interference, and their influence is too important to be disregarded.

It appears then that no scheme hitherto laid before the public is free from very grave objections. The question remains whether any scheme of state pensions is really necessary, or whether, on the other hand, it is not possible to hope that existing institutions will furnish the true solution of the problem. In the first place, the statistics of old age pauperism are somewhat misleading, for (1) a considerable number of applications may have been made by one person, (2) much aged pauperism is due to chronic infirmity which needs special care, and cannot be treated outside the workhouse, (3) more than two-thirds of the whole number of aged paupers are receiving out-door relief, and no doubt many of these ought to be maintained by private endeavour. The annual reports published by the local government board show a marked and steady decrease in the numbers of paupers, due both to improved economic conditions and to stricter administration of the poor law. Much, probably, is to be hoped from careful administration, together with the co-operation of the poor-law authorities with charitable institutions, as at Whitechapel, St. George's-in-the-East, or Brixworth; and evidence shows that charity, both private and endowed, is directly stimulated by strict administration. The amount available from endowed charities alone is estimated at nearly £100,000 per annum, and that from voluntary charity is also extremely large, while the value of voluntary work in charity organisation can scarcely be overestimated.

While well-directed charity and careful administration may be expected to do much for the poorest classes, those which are slightly better off profit much and might profit more by friendly societies. Evidence shows that there is practically no class which cannot afford to belong to a society, and if members begin to insure at an early age the payment required is exceedingly small. Should an effective demand for pensions arise, the great friendly societies, the management of which is steadily and greatly improving, are admirably adapted to meet it. Most trades unions provide superannuation for their members, the number and scope of thrift agencies, such as building societies or co-operative societies, is steadily increasing, while the post office provides facilities for the purchase of annuities or for small savings. A committee of experts—Lord Rothschild (chairman), Sir F. Mowatt, Sir C. Boyle, Sir Spencer Walpole, Mr. Finlaison, Mr. Brabrook, Mr. George King, Mr. A. W. Watson, and Mr. A. Chapman—considered the whole question, and their report (1898), on the whole, was unfavourable.

Germany.—The German scheme, which came into operation under the law of May 1889, makes insurance compulsory, broadly speaking, upon all wage-earners, while certain other classes have the option of insurance (for particulars see INSURANCE, STATE (Germany)). The scheme is worked by means of insurance cards through the post office, and great care has been taken to avoid over-centralisation, the main burden of administration falling on local institutions. Time alone can show how the experiment will work, but the *prima facie* difficulties seem to be the extreme complication of the procedure and the comparative inadequacy of the results. The pension is very small; contributions cannot be exacted from the casual or irregular worker; and no provision is made for widows and married women.

In *Denmark*, under the law of 1891, pensions are awarded only to persons who can prove that during the previous ten years they have been neither in receipt of poor-relief nor convicted of mendicancy. They must be over sixty and in genuine need of help. The amount of the pension is not fixed, and the scheme is administered by the communal councils, the expenses being divided between these bodies and the government. The system seems to be little more than an extension of out-relief, with the usual disqualifications attaching to poor-law relief, but, as with the German scheme, time alone can show whether the experiment will prove successful; and the results of both will be watched with great interest.

In *France* various proposals and suggestions have been made, and M. Méline has recently (October 1897) promised legislation on the subject, but his scheme has not advanced beyond the stage of political programmes, and no details have yet been given.

[Graham Brooks, *Compulsory Insurance in Germany and other European countries.* — France (Office du Travail): *Étude sur les derniers résultats des assurances sociales en Allemagne et en Autriche.*—Germany: De Zacher, *Invaliditats- und Altersversicherung.* — Dr. T. Bödeker, *Die Arbeiterversicherung in den europäischen Staaten.* — T. Menzel, *Die Arbeiterversicherung.* — Belgium (Office du Travail): *L'Assurance contre l'invalidité et la vieillesse en Allemagne.—Report of Royal Commission on the Aged Poor*, 3 vols. (c. 7684), 1895.—*Report of Select Committee on National Provident Insurance*, 1887 (H. C. 257).—Charles Booth, *Pauperism and the Endowment of Old Age.*—C. S. Loch, *Old-age Pensions and Pauperism.*—J. A. Spender, *State and Pensions in Old Age.*—G. Drage, *Problem of Aged Poor.*—*Publications of Charity Organisation Society.*]

L. I.

PENSIONS IN THE UNITED STATES.

The pension system of the United States had its origin in the revolutionary war in the half-pay provisions made for officers. Early in the war, under the advice of General Washington, provision was made that all commissioned officers who should serve throughout the war, take an oath of allegiance to the United States, and reside in the country, should receive half-pay for seven years after the close of the war, provided that they held no office of profit under the states. In 1780 the act was extended to the widows and orphans of those who died during the war; and in that same year the period of half-pay for life was changed to full pay for five years, the sums being paid in interest-bearing certificates that soon depreciated in value.

Besides this provision of the general government for officers, some of the states, notably

Pennsylvania, had made similar laws. In 1785 congress suggested that the states provide pensions for invalids; and three years later the United States agreed to give credit to the states "for such sums as may become due to invalids." In 1808 the central government finally assumed the pension obligations of the separate states.

The principle adopted was that all persons disabled in the service—whether regulars, volunteers, or militia men, soldiers or sailors, under the United States or the separate states—should be pensioned. Safeguards against fraud were made, and on the whole well maintained. In 1818 a demoralising measure was passed, giving pensions to all soldiers of the revolution "who, by reason of reduced circumstances, shall stand in need of assistance from their country for support," provided that they had served in the army at least nine months. Wholesale frauds followed. 27,948 persons applied for relief; over 18,000 claims were allowed. Men who had never served, men who deeded away their property in trust, or gave it to their children, were put on the list. Finally the expense and the abuse became so great that, in 1820, Congress passed a new law with stricter requirements for examination, which caused one-third of the new pensioners to be stricken from the rolls. Later laws produced more abuses, to which President Jackson in his message of 2nd December 1834 refers; but the chief evil came from the above-mentioned act of 1818, which had a very great pauperising effect, in addition to the unexpected burdens laid upon the treasury.

After the civil war, pension legislation repeats the history of the earlier times; but the number of pensioners is so much greater that the sums of money involved are enormous, and the danger of political corruption great. At first the general principle followed was that all, regardless of rank, "wounded or disabled while in actual service," should be cared for at the public expense. This principle was extended, naturally, to cover also those dependent on the soldier. The amount granted for total disability ranged from $8 to $30 per month, according to the official rank of the pensioner. Some acts were passed granting definite sums for specific injuries, and these were from time to time increased, *e.g.*:—

	Per month.
1864. For loss of both feet. . .	$20
1866. Loss of both feet or both hands, or sight of both eyes, or such disability from other causes as required the personal attendance of another person .	25
1872. This increased to . . .	31·25
1874. „ „ . . .	50
1878. „ „ . . .	72
1879. Those becoming totally blind from war causes . . .	72
1889. Those losing both hands .	100

Similar changes were made in other respects, as well as specific provisions for artificial limbs, trusses, etc.

January 25, 1879, the so-called "Arrears of Pensions" Bill became a law. This provided that pensions granted before or after the passage of the act should commence from the date of death or discharge from the army of the person on whose account the pension was granted. In many cases this added a round sum of hundreds or even of thousands of dollars to pensions lately granted. The prize was so great that within the next eighteen months more than 170,000 new claims were filed, and the expenditure for pensions leaped from some $33,000,000 annually to more than $60,000,000 within five years, with a steady increase to nearly $90,000,000 in 1889.

In 1890—largely probably as a result of political pressure and the fear of offending the old soldiers and their friends if the bill were not passed—the Dependent Pension Law went into effect. This provided that "all persons who had served . . . ninety days or more . . . and who were suffering from a mental or physical disability of a permanent character, not the result of their own vicious habits, which incapacitates them from earning a support by manual labour," were to be pensioned at from $8 to $12 a month, in proportion to the degree of their disability. The first commissioner of pensions after the passage of this act, by a very liberal ruling, included under it specific disabilities, and the "capacity of a claimant . . . to perform manual labour was no longer even considered in adjudicating his claim." The expenditures increased very rapidly. In 1892-93 the amount paid for pensions exclusive of office expenses was $156,740,467.14. For 1895 the total estimates, including surgeons' and agents' expenses, were $162,631,570.

A new commissioner of pensions in 1893, believing that many pensions had been illegally granted under the act of 27th June 1890, appointed a board of revision to examine the cases allowed under that act, and many fraudulent cases have been found and the pensions withdrawn. For the year ending 30th June 1896 the commissioner estimates the needed expenditure for pensions at $148,000,000.

Liberal as the United States have been in thus granting pensions, the demoralisation wrought by so many liberal acts and by the appeals of pension agents has led to a vigorous demand, which it is hardly likely will be granted, for a law granting a pension to every person who had been sixty days or more in military or naval service.

Besides the general laws, special laws by the thousands have been passed granting pensions to those not receiving them under the general acts, or increasing the sums allowed them. In

one day, 3rd March 1891, ninety-six such bills became laws.

Of late years ex-presidents' widows have been given pensions—first Mrs. Lincoln, then Mrs. Garfield, Mrs. Polk, Mrs. Tyler; and retired judges of the U.S. supreme court receive them. There has also been discussion of pensions for the life-saving service, railway mail clerks, etc. But the country has on the whole limited its pensions to those who have served in the army and navy. J. W. J.

PERAVY, De. See St. Péravy.

PERCEVAL, Spencer (1762-1812), English statesman and financier, was the second son of the second Earl of Egmont. He entered parliament for Northampton in 1796, and became a strong supporter of W. Pitt.

When Pitt succeeded Addington, Perceval, who had been solicitor-general to the latter, again accepted office as attorney-general. He declined to prosecute the members of the early trade-unions at the instance of the employers, on the ground that he was unwilling to commit the government to a uniform support of the employers on trade questions. He cordially supported Wilberforce's endeavours to remedy the abuses of the Guinea slave trade. Perceval devoted much attention to financial questions, and took a conspicuous part in the debates on the financial irregularities which led to Lord Melville's impeachment. On the death of Pitt (1806) he resigned; but he still took an active part in parliament.

In the Duke of Portland's ministry, formed 31st March 1807, Perceval became chancellor of the exchequer. After a dissolution the ministry returned greatly strengthened. He was successful with his first budget, and his scheme for the conversion of 3 per cent stock into terminable annuities was generally approved.

On the death of the Duke of Portland in 1809, Perceval became prime minister, retaining his old post of chancellor of the exchequer. The ministry was weak, and the times critical. Military and fiscal troubles followed on each other in quick succession. England was required to pay for the Spanish army in the Peninsular war, when she could scarcely pay for her own, and gold payments were demanded when gold was extremely scarce. Perceval struggled bravely against his difficulties, which were aggravated by a powerful opposition.

The budget demands in 1811 revealed the serious condition of the national finances. The chancellor's proposals included a grant of £2,100,000 for Portugal, and the ministry acceded to the recommendation of the select committee on commercial credit that £6,000,000 should be advanced to the manufacturers suffering from the over-speculation of previous years. When Horner proposed resolutions in favour of the resumption of cash payments, Perceval successfully resisted them. A bill was passed in July making bank-notes legal tender, avowedly because gold was so appreciated that for currency purposes it was unprocurable, while bank notes were worth only 80 per cent of their face value.

Though Perceval now appeared to be in a strong position, difficulties soon arose. His opposition to popular reforms greatly weakened his ministry, and his policy on the Orders in Council dealt it an almost fatal blow. The unwisdom of these orders had long been apparent, and it was contended that instead of injuring France they were rapidly destroying English commerce.

In the midst of his struggle against almost overwhelming odds, Perceval was assassinated by a deranged bankrupt named Bellingham, as he was entering the House of Commons on 11th May 1812. He was a man of stainless personal character, but narrow in his views and mediocre in his abilities. Nevertheless, he had a dogged persistency that carried him through crises which would have daunted abler men. As a financier he wanted originality, but framed his policy according to the dictates of expediency and opportunism.

[Alison, *Europe.*—Spencer Walpole, *Life of Perceval.*—*Dictionary of National Biography*, vol. xliv.—Jesse's *Memoirs of George III.*—Massey's *History of England.*—The Duke of Buckingham's *Memoirs of the Regency.*] G. B. S.

PERDIGUIER, Agricol (1805-1875), originally a working man, was elected a representative to the French national assembly of 1848.

He wrote three books on French *Compagnonnages*, or local groups called *Devoirs*, of itinerant artizans confederated by crafts into general associations covering the whole of the country—many groups had in secret survived their abolition by law in 1791. The principal is the *Livre du compagnonnage* (1837), in which he gives their history, disentangled from several rather mythical stories as to their origin, describes the local institutions with their ceremonies and pass-words, and entreats them to stand firmly together—warning them against some abuses which had sprung up in the course of time. He also wrote *Une scission dans le Compagnonnage* (1846), and *La question vitale du Compagnonnage* (1861). Perdiguier was intelligent and clear-headed, deservedly esteemed by his fellow working-men. E. Ca.

PEREIRA, Gregorio Pietro (18th century). Was a priest of Portuguese extraction. He wrote a treatise on money and commerce, read at the academy of Ravenna, 1757.

He follows the theories of Melon and shows the influence of Pufendorf and Locke. He accepts Locke's idea of money and his theorem that the amount of metal in a coin alone constitutes the measure of its value. He shows the disadvantages produced by monetary alterations, and examines the means possessed by

states for increasing gold and silver and concludes that these are conquest and commerce.

He advocates the maintenance of a favourable BALANCE OF TRADE (*q.v.*), and places this in the predominance of exports over imports, the development of the navy, agricultural industry and manufacture, and the increase of national products.

Dissertazione sopra la giusta valuta della moneta e la necessità del commercio per arricchire gli stati. Faenza, 1757.

[Graziani, *Le idee economiche degli scrittori emiliani e romagnoli, etc.* Modena, 1893.] U. R.

PEREIRE, ÉMILE (1800-1875), was in his youth one of the most devoted of the St. Simonians (see ENFANTIN; ST. SIMON), and a contributor to their journal, the *Globe*. He also wrote in the *National* and the *Revue Encyclopédique*. After the dispersion of the St. Simonian school, he, like most of its members, showed himself a very enterprising and active business man. With the co-operation of his brother, Isaac PEREIRE (*q.v.*), also earlier in life a St. Simonian, he constructed the first line of railway in France, between Paris and Saint Germain, and later contracted for the main lines of the *Compagnie des Chemins de Fer du Nord*. In 1852 the two brothers jointly founded the *Société Générale du Crédit Mobilier*, which gave a wonderful impulse to great financial and industrial enterprises both in France and elsewhere.

Émile Pereire published in separate form:—*Examen du Budget de 1832. Réformes financières . . . moyen de supprimer les impôts du sel, des boissons, du tabac et la loterie* (1831).—*De l'assiette de l'impôt; examen critique de travail de la Commission de la Chambre des Députés sur le budget des recettes* (1832).—*Considérations sur les Finances de la France et des États Unis* (1832). These belong to his St. Simonian days, and are republished from the *Revue Encyclopédique*.

[G. Weill, *L'École St. Simonienne*, 1896.]

E. Ca.

PEREIRE, ISAAC (1806-1880); for biographical details see note on his brother EMILE PEREIRE.

Isaac Pereire published *Le Rôle de la Banque de France et l'Organisation du Crédit en France* (1864).—*Budget de 1877; questions financières réforme de l'impôt* (1877).—*La question des chemins de fer* (1879).—*La Question Religieuse* (1879).—*La Politique Financière* (1879).

E. Ca.

PERI, GIOVANNI DOMENICO, a rich and learned merchant of the first half of the 17th century, desired, as he says in his preface, "to communicate to the world some collections about the establishment and maintenance of his business," which were originally intended for his sons Girolamo and Tomaso, successors to their father's business.

These collections he printed in his *Negoziante*, a work which, however, has much wider aims than the author would lead us to believe. It is a technical handbook for merchants, to teach them trading and book-keeping, treating at much length of the method of mercantile accounts called the system of double entry. It contains also interesting historical notices on the exchanges between the principal Italian and foreign cities, explained in twenty statements in the second part. Following the impulse given to comparatively liberal opinions in public economy and commerce, as by SCACCIA, STRACCA, and other followers of commercialist doctrines, Peri demonstrates the importance of merchants, and pleads for them and commerce. He treats also of mercantile contracts, giving all the necessary explanations for entering into them conformably with the ideas of the jurisconsults of his epoch. The work is divided into four parts, and is still interesting, especially for the history of the mercantile customs of those times.

Il negoziante, Genoa, 1638, and Venice, 1672, parts i. and ii.; 1673, parts iii. and iv., presso Gio. Giacomo Herz.

A. B.

PERICULUM SORTIS. This term is used by mediæval writers on usury to describe the danger on the score of risk to which a man might expose himself by lending money. Although usury and interest, in the modern sense of the term, were forbidden, exceptions to and evasions of the strict letter of the law became increasingly common; among others we find payment widely taken on the ground of *periculum sortis* in cases where an individual incurred a distinct risk of losing his loan altogether; or, where he was inconvenienced by the failure of a borrower to return it at the stipulated time.

[Ashley, W. J., *Introduction to English Economic History*, i. (1892).—Cunningham, W., *Christian Opinion on Usury* (1884).—Cunningham, W., *Growth of English History and Commerce* (1890).]

E. A. M.

PÉRIER, CASIMIR (1777-1832). Originally an engineer officer, he left the army in 1802 to found a bank. Under the government of the Bourbons, he was in the Lower House, and a steady opponent of the reactionary measures passed during their reigns; after the revolution of 1830 he became minister of the interior, and held this post at the time of his death.

His *Réflexions sur le projet d'emprunt* (1817), and his *Opinion sur le projet de loi relatif au remboursement et à la réduction des rentes* (1824), were directed against foreign loans and the conversion of state loans. In 1838, a collection of his speeches was published under the title of *Opinions et Discours de M. Casimir Périer* (4 vols.) with a prefatory notice by M. de Rémusat.

E. Ca.

PERIODICITY OF CRISES. See CRISES.

PERIOT (or PERIT). A fractional part of the troy grain formerly used in calculating the value of the precious metals, but not actually existent as a weight. Taking the standard troy pound as a unit, the subdivisions were as follows:— 8

1 Troy pound	=	12 ounces
1 ,, ounce	=	20 pennyweights
1 ,, pennyweight	=	24 grains
1 ,, grain	=	20 mites
1 ,, mite	=	24 droites
1 ,, droite	=	20 periots
1 ,, periot	=	24 blanks

The periot, therefore, was equal to $\frac{1}{960}$th grain, and the smallest subdivision, the blank, to $\frac{1}{230400}$th grain. As no weight less than about $\frac{1}{9600}$th grain is appreciable on a good assay balance of the present day, it is evident that no such weights as the above could actually exist, and there can be little doubt that they were used in calculating the value of bullion in bulk in the same manner as we now use decimals. Thus the schedule to the Coinage Act 1870 gives the weight of a sovereign as 123·27447 grains, but if the weight be calculated from the data given in the note to the schedule (934 sovereigns and one half-sovereign in a pound troy of standard gold), it is seen that this is only an approximation, the exact weight being indeterminate (see GUINEA), and, where minute accuracy is aimed at, the number of decimal figures used will depend on the multiple of the sovereign under consideration.

It is not possible to state precisely when these weights were first introduced, or when their use was discontinued, but they are referred to in an old manuscript volume in the Royal Mint library, entitled *Mint and Moneta*, which bears no date, but appears to have been written during the latter half of the 16th century, as "only used by the goldsmiths for the making of an assay of gold and silver." They are also used in an act of Queen Elizabeth (43 Eliz. 1601) in defining the weights of silver coins, and for a similar purpose in regard to both gold and silver coins in an act of the Long Parliament (see Scobell's continuation of Pulton's *Acts and Ordinances*, 1640-57, under date 1649 c. 43, *Moneys and Coins of England*). References will be found to them also in various modern text-books (Chaffer's *Hall-Marks on Plate;* Kelly's *Universal Cambist;* Ruding's *Annals of the Coinage;* Chaney's *Our Weights and Measures*. It is interesting to note that three of the names used for these subdivisions of a grain are those of ancient coins; also that they are alternately one twentieth and one twenty-fourth, as in the case of the ounce, pennyweight, and grain at the present day. E. B.

PERMIT, a license or writing granted by the officers of the excise certifying that the duties on certain goods have been paid, and authorising or permitting their removal from one place to another. Previous to 1848 all spirits sent out by spirit dealers were accompanied by permits, but by the 11 & 12 Vict. c. 121, an excise certificate was substituted for the permit. This provision was extended to the removal of spirits by rectifiers and compounders by the 23 & 24 Vict. c. 114.

The use of permits is at present restricted chiefly to the removal of duty-free malt and of spirits from distillers' spirit stores or from duty-free warehouses.

Permits and certificates are regarded as a valuable means of identifying articles on transit, and of distinguishing those upon which the duties have been paid from those upon which duties have not been paid. They also afford a means for checking the receipt of illicit spirits, and of preventing a fraud on the revenue laws. J. E. C. M.

PERPETUITIES, RULE AGAINST. The rule against perpetuities is intended to prevent the tying up of land or other property for an indefinite period. The love of power, and the wish to perpetuate the opulence and consideration of their families, has often induced owners of property, especially of landed property, to settle beforehand its devolution for as long a time as possible. But the English courts of justice have always endeavoured to limit this action in the public interest and to maintain freedom of trade in property. When the landowners procured the statute *De Donis Conditionalibus*, 13 Edw. I. c. 1, which made entailed land inalienable, the courts evaded the statute by means of the collusive actions known as fines and recoveries. When the Statute of Uses, 27 Hen. VIII. c. 10, contrary to the intention of those who enacted it, made possible new contrivances for guiding the devolution of landed estate, the courts again took alarm, and by degrees worked out what is now known as the rule against perpetuities. Under this rule, any disposition of landed estate, or other property, which is to be valid, must take effect within the period of a life, or lives, in being at the time when it was made, and twenty-one years afterwards, with an additional allowance for the period of gestation where the party entitled is a posthumous son. The practical importance of this rule, as ensuring the restoration of land sooner or later to free commerce, is vastly diminished by the fact that every tenant for life has now a statutory power of selling the settled land (see SETTLEMENT, LAND; ENTAIL, LAW OF).

In connection with the rule against perpetuities may be noticed the rule limiting the period during which the income of property, real or personal, may be accumulated for the benefit of the person or persons who will ultimately take that property. The rule is contained in the act 39 & 40 Geo. III. 98, popularly known as the Thellusson Act. A certain Mr. Thellusson had ordered in his will that the income of his estate should be accumulated during the lives of all his children and grandchildren alive at the time of his death for the benefit of some future descendants. Such a disposition did not contravene the rule against perpetuities, but it was felt to be unreasonable and contrary to public policy. It thus led to the passing of the act

above mentioned, which forbids the accumulation of the income of property for any period longer than the life of the grantor, and twenty-one years afterwards, with an allowance for the period of gestation where the person who is to take is still unborn at the death of the testator. Any direction to accumulate income, which contravenes the act, is void for the time in excess of the period prescribed by the act. The income during such time is to be paid to the person who would have been entitled to receive it had there been no direction to accumulate. A further check on the accumulation of income for the purpose of purchasing land is imposed by the Accumulation Act 1892 (55 & 56 Vict. c. 58). (See THELLUSSON.)

[Williams, *Principles of the Law of Real Property*, and *Principles of the Law of Personal Property*, and Lewis on *Perpetuities*.] F. C. M.

PERSONAL PROPERTY. Personal property is, roughly speaking, movable property; as real property is, roughly speaking, property in land. It consisted originally of movables or chattels in the strict sense, but its scope was afterwards extended. Certain interests in land which were of little consequence at the time when the definition of real estate became fixed, are described as *chattels real*, and treated as personalty. These include all leasehold interests and estates at will. Again, the right to enforce payment of a debt or to recover damages in an action at law are included in personalty under the name of *choses in action*. Personal annuities, money invested in the funds, the shares of most companies, patents and copyrights, are described as incorporeal personal property. Indeed many objects now included in personal property have hardly anything in common save that on the death of the person entitled to them, they pass to the executor or administrator, whilst realty before 1898 passed to the heir or devisee.

[Williams *on Personal Property*.] F. C. M.

PERSONAL SERVICES are those which are expended in guarding, conveying, or otherwise preserving (*a*) the objects of production; (*b*) the persons of the producers. These services may be, as SISMONDI observes (*Nouv. Princ. de l'Écon. Pol.*, p. 147), "of the most elevated as of the most menial kind . . . as for instance those of a physician . . . or those of a *valet de chambre*."

Economists differ as to whether the possession of such services may be rightly esteemed wealth, and as to whether those who render them should be styled productive or unproductive labourers. Adam Smith observes that "the labour of a menial servant . . . adds to the value of nothing" (*Wealth of Nations*, edited by M'Culloch, p. 149). J. S. Mill, following his lead, writes of "domestic servants and all other unproductive labourers" (*Principles of Pol. Econ.*, ch. iii.), and sharply criticises M'Culloch and J. B. Say for classing them as "productive." Again, in his *Some Unsettled Questions of Political Economy* (Essay iii.), Mill distinctly repudiates the idea of domestic servants being productive labourers, yet, inconsistently, admits (*op.* also Sismondi, *Nouv. Princ.*, p. 147) that most of such persons "occasionally, and some habitually, render services which must be considered as of a productive nature" (p. 85 *ib.*).

The French economists of the present century opposed both Smith and Mill. Thus J. B. SAY, referring to the consumption of wealth, observes that the most rapid consumption is that made *des services personnels* (*L'Écon. Pol.*, ii. p. 231; also quoted by Sandelin, *Répertoire Gén. d'Écon. Pol.*, art. "Consommation"). Sismondi thought them productive, yet he makes the confusing remark that "they only differ from productive labour in the fact that their results cannot be stored up" (*ib.* p. 147).

F. BASTIAT argued against both Smith's and Mill's reasoning. In his chapter on value, he examines the nature of a "service," laying stress on Say's doctrine—as old as Bacon—that there is really no such thing as creative or so-called "productive" human labour. Man can only combine or displace the forces and materials which already exist. It follows from this that all labour being equally "unproductive," the importance of any service is only a question of degree. Bastiat considers the services of soldiers, guards, etc., as "undoubtedly" "productive," "seeing that the sole object of the arrangement is to increase the proportion which the aggregate satisfactions of the community bear to the general efforts" (p. 146 *ib.*). He proceeds to argue that personal services have "value" quite independently of their transiency, and referring to those services which "vanish and leave no trace behind," he remarks: "The very same thing holds of personal services. The consumer makes the value disappear, for it has been created only for that purpose. It is of little consequence, as regards the principle of value, whether the service is undertaken to satisfy a want to-day, to-morrow, or a year hence."

Modern English economists have not all agreed with Bastiat. Prof. Alfred Marshall is, however, very decided on the question. Defining wealth as consisting of the desirable things a man possesses, he confines the term to a man's "external goods," but he extends this to include "personal services of all kinds" (*Principles of Pol. Econ.*, p. 106). Prof. J. E. CAIRNES (*Some Leading Principles of Pol. Econ.*, p. 25) brackets commodities and services interchangeably as wealth; but Prof. H. Sidgwick (*Principles of Pol. Econ.*, bk. i. ch. iii. p. 78), going back to Smith's definition of wealth, places both sides of the question with almost equal force before his readers. "A man's money," he observes, "is not entirely . . . spent in consumable things . . . it is partly spent in what we may call 'consumable services,' *i.e.* utilities furnished

by the labour of others, 'which are not fixed and embodied in matter,' such as the services of domestics, physicians, actors, carriers. Ought we then to extend the conception of 'wealth' to include such services." . . . "If, as I think, the term wealth is by usage restricted to stores or sources of utility comparatively permanent, some other term must be found to include . . . what I have called directly 'consumable services,' . . . and I propose . . . to employ the terms 'commodities' and 'produce of labour' in this extended way." Prof. Sidgwick then goes on to raise the question which Bastiat discussed, and assumes that personal services "are not wealth, on account of their transiency". (*ib.* p. 79). Prof. Marshall (*Principles of Economics*, 1st ed. p. 110) observes that the inclusion of these does not often affect our discussions except in cases where there is a distinction between what is "wealth to the individual," and 'wealth to the society."

It is, however, obvious that the personal services of what Sismondi happily calls *cette population gardienne* (*ib.* p. 141) are absolutely and directly indispensable to the production, the transfer, the circulation, and what is equally important, the protection and preservation, of wealth, and must therefore be classed as indirectly productive labour. A. L.

PESCATORE, MATTEO (1813-1879), was born at San Giorgio Canavese (Piedmont). He first taught civil law and then the philosophy of law at the university of Turin. He was a deputy in the sub-alpine parliament, and when the kingdom of Italy was constituted he became one of its senators. Deeply versed in judicial and social science, his work has left traces on education, legislation, science, finance, and the philosophy of law. In the teaching of law Pescatore introduced a rational, in place of an exegetical method. The law on the enfranchisement of long leases is due to his labours and work in parliament.

He left two important works, one on legal philosophy, *Logica del diritto*, the other on finance, *Logica delle imposte*. Turin, 1867. The latter is a comprehensive treatise on taxes, and displays thorough practical sense combined with incisive and original ideas as well as profound learning.

[A. Bertolotti, "Matteo Pescatore," in the *Rivista Europea*, Florence, 1879.] U. R.

PESETA—a diminutive of PESO, which was frequently used to denote the Spanish dollar—first appears amongst Spanish coinage terms during the 17th century. It was then, however, rarely used. It was a division of the dollar, and was applied to two different moneys of account, distinguished as

PESETA MEXICANA, which = 5 reals vellon,

PESETA PROVINCIAL, which = 4 reals vellon.

The coin representing this latter denomination, usually called the PISTAREEN, was from 1700 onwards a familiar term in commerce, particularly in the West Indies; five of them went to the dollar, and they were, in 1717, valued by Sir Isaac Newton as 10$\frac{3}{4}$d. of English currency.

When, in 1876, Spain actually adopted the method and standard of the Latin union, she took the peseta provincial, which was roughly equal to the franc in value, as the unit of the new currency, and divided it into 100 centimos, to correspond with the French centime. The silver 5-peseta piece, like the 5-franc piece of France, became the largest silver coin, and the gold 25-peseta piece was the representative of the existence of a gold standard. But, owing to the absence from Spain of a sufficient stock of gold to keep the 5-peseta piece at its proper value, the peseta has been steadily falling in gold price for some years past, and at the present time (December 1897), instead of 25·22, as many as 33 are required in exchange for a sovereign.

[Kelly's *Cambist*, p. 319.—Chalmers's *History of Colonial Currency*, p. 395.—Browne's *Merchant's Handbook*, p. 58.] C. A. H.

PESO. See DOLLAR, MEXICAN, etc.

PESSIMISM. Like the term OPTIMISM, the term pessimism is used in a variety of senses. Properly it denotes the doctrine that, in the world as a whole, evil necessarily predominates over good. But it is often used loosely to describe the mood of those who are more alive to the evil than to the good of existence. Quite apart from any philosophic theory, differences of temperament and of circumstances will cause men to differ very widely in their estimate of life. Individual feeling admits of infinite gradations which defy classification. Pessimism and optimism in this popular use are terms of merely relative import. Pessimism as a principle has manifested itself in religious forms, notably in Buddhism, and in philosophical forms, the most modern of which are associated with the names of Schopenhauer and Hartmann. A critical examination of pessimist theories would altogether transcend the limits of this article. They have their origin in the undeniable and awful contrast between human aspiration and human attainment. No form of philosophic pessimism has at present exerted much influence on political economy. The CLASSICAL ECONOMISTS (*q.v.*) lived in an age of optimism and were in full sympathy with their age. They had a hearty faith in the unfettered energies of mankind. It is true that the theories of certain eminent economists, as MALTHUS and RICARDO, have been used to demonstrate that under existing conditions the state of the mass of mankind must steadily grow worse. The inference commonly drawn, however, was not that mankind were doomed by fate to suffer, but that the actual economic

system must be modified. Those who do not expect well-being to result from individual effort are confident that it can be produced by the action of the community.

The rising generation of economists may probably be less optimistic in tone. The very diffusion and intensity of the desire for comfort tend to produce a formidable discontent which may at first discharge itself upon obnoxious institutions or classes, but must finally break against the unalterable facts of nature. Certain characteristics of modern civilisation, notably the resulting prolongation of the lives of the weak, both in mind and body, and the heavy burthens imposed on the capable members of society, seem likely to retard progress as hitherto understood. The limits to the physical resources of our globe are becoming more apparent. Nearly the whole of its surface has been explored; the area which civilised man can occupy has been pretty well ascertained; the great forests are disappearing, the virgin soils are losing their spontaneous fertility, and mines are worked upon a scale which in many cases threatens exhaustion in no distant future (MINES AND MINERALS, EXHAUSTION OF). The assumption that mankind are destined to a practically infinite economic development is thus shaken. The economists of a past age were chiefly concerned with the advantages which would follow the destruction of artificial barriers; but the stringency of natural limitations which cannot be removed will probably attract more attention from the economists of the approaching time.

[J. Sully, *Pessimism, A History and a Criticism.*—W. Wallace, article on "Pessimism" in the *Encyclopædia Britannica*, and the authorities therein cited.] F. C. M.

PESTEL, FRIEDRICH WILHELM VON (1724-1805), was born at Rintelen (Lippe-Schaumburg), studied at Göttingen, became doctor *utriusque juris* (1747), and professor of law, first at Göttingen and afterwards (1763) at Leyden. He was dismissed from his office in 1795, when the revolution broke out; and then went to Germany, but returned in 1803 and remained at Leyden until his death. In 1792 he was ennobled by the Emperor.

His works mostly deal with law; the following, however, contain parts which are important in connection with economic study; *Gedanken von der Rechtmässigkeit der Reichsständischen Landposten und der Unerweislichkeit eines diese ausschliessenden fürstlichen Taxischen Reichspostmonopols* (Thoughts on the lawfulness of the posts managed by the different governments of the empire and the absence of evidence for the monopoly of the posts enjoyed by the Prince of Taxis), Rintelen, 1759.—*Fundamenta jurisprudentiae naturalis delineata in usum auditorum, L.B.* 1773, 1774, Ultraj, 1776, translated into French (1775) and into Dutch (1783).—*Commentarii de Republica Batav., L.B.*, 1782 and 1798. The last work especially contains some remarks on trade and currency that deserve mention; they bear, however, for the greater part, the impress of the opinions of his time: the general ideas are mostly imbued with a moral and philosophical character. A. F. V. L.

PETER'S PENCE, called also Rome Scot. An annual payment made to the pope of Rome till the reign of Henry VIII. Its origin is almost lost in antiquity, but tradition says that it was instituted by Offa, king of Mercia, who, after a visit to Rome, ordered that every person having land or cattle of the annual value of 30d. should contribute a penny annually towards the support of the English college at Rome, the whole to be collected each year during the time between the feast of St. Peter and St. Paul and the first of August. Before the beginning of the 13th century Peter's Pence had been commuted for a fixed annual payment, about £200. Even this soon came to be looked upon as a papal exaction, rather than a free gift, and the threat of withholding it was a valuable weapon against papal aggression: when therefore in 1305 A.D. Clement V. tried to go back to the old system of a penny from each household, the attempt was stoutly resisted, and it was never again repeated. The term is still used as describing voluntary payments made to the Pope. The payment of Peter's Pence as a national gift was abolished in 1533 by 25 Henry VIII., c. 21.

[Stubbs, *Constitutional History.* — Froude, *History of England.*] A. E. S.

PETIT SERJEANTY. See SERJEANTY.

PETITTI DI RORETO, CARLO ILARIONE (1790-1850). Born in Turin of a noble family, he held important offices under the Piedmontese government, and occupied himself much with the duties of administration and economic study, discussing and proposing important liberal reforms in the state, and exercising a useful influence.

His principal work, on the best manner of dealing with beggars, will bear comparison with DE GERANDO's classic. In this book Petitti discussed the precautions taken to prevent begging in different states, and the question of legal intervention. Another work on Italian railways, in which he studied the organisation of railways thoroughly, giving many useful statistics, was of great importance in Italy, as the first example of this kind of investigation at a time when great industrial questions were still not familiar in that country.

Petitti wrote also on prison discipline (Turin, 1840), on children's labour (1841), customs unions (1844), reform in taxation (1844), and on many other subjects.

After his death another of his works was published, on the subject of the lottery. In this are collected facts from different countries, their laws on the subject, and the history of the different systems; he attacks government lotteries with much force. *Sul buon governo della mendi-*

città, Turin, 1837.—*Delle strade ferrate e del migliore ordinamento di esse*, Capolago, 1845.—*Del giuoco del lotto*, Turin, 1853.

[P. S. Mancini, *Notizia della vita e degli studj di C. I. Petitti di Roreto*, publicata come proemio all' opera postuma di questo sul giuoco del lotto.] U. R.

PETTY BAG, *Parva Baga*, was a division of the chancery records which was concerned with writs and returns in cases more nearly affecting the interests of the crown than those of the subject. These records date from the Tudor period, and include writs and returns of *Certiorari*, *Atl quod Dampnum*, *Depopulations* and *Scire Facias*, etc. These might be classed as the political records of the chancery, that is, in so far as they refer to questions of state or public policy. The division, however, is very loosely made, and is not consistently observed.

For economic purposes these records are interesting as containing valuable and instructive returns of "Depopulations" under Elizabeth and James I. A. L.

PETTY, Sir William (1623-1687), political economist and statistician, born at Romsey in Hampshire, was educated to be a doctor, and graduated, 1649, in physic at the University of Oxford, subsequently at the College of Physicians in London. His active life may be divided into two periods. During the first, after a short tenure of the professorship of surgery at Oxford, he held several public appointments in Ireland, in connection with the survey of that kingdom and the subsequent distribution of the confiscated lands amongst the successful soldiery, after the conquest of the island by the Commonwealth. Petty enjoyed the confidence of the Cromwell family in a singular degree, and remained devoted to their memory to the last. In the second part of his career, after the overthrow of the Protectorate by the Republicans, and of the Republic by the Restoration, he devoted himself to the study of vital statistics and questions of trade and commerce, to which he gave the name of "political arithmetick" (see Arithmetic, Political). He enjoyed the good-will and protection of the king personally, though he was the object of dislike of the extreme court party, as he had been of that of the extreme republicans.

"By political arithmetick," says Davenant, "we mean the art of reasoning by figures upon things relating to government. . . . The art itself is undoubtedly very ancient; but the application of it to the particular objects of trade and revenue is what Sir William Petty first began. . . . He first gave it that name, and brought it into rules and methods" (Davenant, *Political Arithmetick*, Works, 1, 128, 129). In this sense Sir William Petty has, and not without reason, been called the founder of political economy.

Putting aside the works relating to the history of the Down survey, which are of exclusively historical interest, the first publication with which the name of Petty is connected is *The Observations upon the Bills of Mortality* of the city of London, published in 1662; a small book of about 100 pages, but bearing on the title-page the name, not of Petty, but of Graunt (*q.v.*). Whether Petty or Graunt was the real author has been the subject of much controversy. It is to be noticed that in a list of his writings—though not of his published works—found at Wycombe in his own handwriting, some "observations on the bills of mortality" are mentioned under the date of 1660, *i.e.* two years before the appearance of Graunt's pamphlet (*Life of Petty*, p. 318). It is not, however, stated that these observations were then published. On the other hand, in one of the two series of detached essays on "political arithmetic," published at various times between 1671 and 1687, Petty speaks distinctly of the earlier work as "Grant's book"; and in another he refers to his own essay the "Observations upon the Dublin bills" as the "'snuffers' to make the candle of the new light to the world given by the earlier book burn clearer."

Taking this list of facts into connection with the publication by Petty, in 1674, two years after Graunt's death, of a new and enlarged edition of the book, with the numerous parallelisms between the *Observations* and the *Treatise on Taxes*, published by Petty in 1662, with the general belief at the time, as evidenced by Evelyn and Burnet, that Petty was the author, and with the intimacy over a long period of Petty with Graunt, it can hardly be doubted that Petty had, to say the least, a large share in the work, and that the case is one of joint authorship[1] (*Life of Petty*, p. 180).

Of Sir William Petty's economic works, five have achieved a permanent reputation—the *Treatise on Taxes and Contributions*, published 1662; the *Discourse on Political Arithmetick*, written in 1671, but not published till 1691, after his death; and a tract entitled *Quantulumcunque concerning Money*, dealing with questions of currency, written in 1682; a tract entitled *Verbum Sapienti*, written in the last year of the first Dutch war, in 1665; and the *Political Survey or Anatomy of Ireland*, published anonymously in 1672. To these may be added the two series of detached *Essays on Political Arithmetick*, already alluded to, written at various times between 1671 and 1687. It has been well observed that all these treatises—none of which is of any considerable length—"are less akin to elaborate treatises than to essays throwing out hints and thoughts" (*Edinburgh Review*, No. 373, July 1895). The author shows a marked tendency to keep in view the practical aspect of

[1] See on this subject *Graunt or Petty*, by Professor C. H. Hull, Boston, 1896; and a *Dissertation on Sir William Petty*, by Mr. W. L. Bevan, Canterbury, 1898; *Life of Sir William Petty*, ch. vii.

questions, and to found his reasoning on observation and on facts gained through his own experience, rather than on those methods of deductive reasoning which were pursued by the economists of a later school. In this respect Petty's methods are far more suggestive of Adam Smith than of Ricardo; and they bring him into touch with the economists of the present day, such as Thorold Rogers and Marshall. "An opinion of what is possible to be done" is the heading of one of his papers, and the tendency to prefer the practical to the abstract is one of the strongest characteristics of his mind. It originated, no doubt, in his own early experience of the difficulties of the art of government in Ireland, and in his protracted and only partially successful struggles for reformed methods of administration, which brought him into collision with nearly all the different parties successively which governed the country under the Commonwealth and during the reign of Charles II., and no doubt impressed on his mind the necessity of compromise. If, however, his method was to collect facts and statistics, and to try to found general propositions upon them, he was perfectly aware of the deficient character of the statistics he had to use. Proposals for improving the public and official sources of information in this respect, in other words, for establishing a proper statistical department as part of the machinery of government, constantly recur in his pages, and the evils arising from the absence of a proper machinery for readily obtaining this class of information are powerfully enforced. It would not, however, be correct to say that no instances of the deductive method of reasoning are to be found in Petty's works. Thus in the *Treatise on Taxes and Contributions*, a speculation on "a par of land and labour" or universal standard of value, is to be found, which belongs to this order of ideas. Such instances are, however, the exception.

Petty's speculations are most original in the sphere of trade and commerce. The age was still one of prohibition and restriction, though the absolute prohibitions of the mediæval governments, which regarded trade with a foreign country as a matter of at least very doubtful benefit, were making place for the "mercantile" system, which admitted trade to be desirable, but only in so far as it could be shown to increase the amount of the precious metals in the country, as they were considered to be the only true sources of wealth. Petty saw clearly that the whole system of attempting, with this object, to force trade into artificial channels was a mistake. The sources of wealth, he clearly pointed out, were not gold and silver, but "land and labour," and money he saw was simply a measure of value, owing to certain intrinsic excellences of the precious metals as a standard. "If a man," he pointed out, "can bring to London an ounce of silver out of the earth in Peru in the same time that he can produce a bushel of corn, then one is the natural price of the other. Now if by reason of new and more easy mines a man can get two ounces of silver as formerly he did one, then corn will be as cheap at ten shillings the bushel as it was before at five shillings *ceteris paribus*" (*Treatise on Taxes*, ch. v. p. 38).

These views brought him very near to a correct theory of trade. "Why," he asked, "should we persuade water to rise of itself above its natural spring? . . . We must consider in general that, as wise physicians tamper not exceedingly with their patients, rather complying with the motions of nature than contradicting it with vehement administratives of their own, so in politics and economics the same must be used. . . . Why should we forbid the use of any foreign commodity which our own hands and country cannot produce, when we can employ our spare hands and lands upon such exportable commodities as will purchase the same and more?" (*Treatise on Taxes*, ch. vi. p. 48; *Political Anatomy*, ch. xi. p. 356). Successful trade, and the wealth which trade produces, he saw was a matter of exchange; and that by increasing the amount of both the imports and the exports of the country, the wealth of the country could be increased, and not by trying artificially either to foster the one or the other, or to increase the import of the precious metals (*Treatise on Taxes*, ch. vi.).

He was not, however, always entirely consistent in his views (*Life of Petty*, p. 199). He seems to have believed that there might after all be some inherent superiority in the precious metals over other sources of wealth; and his silence on the Navigation acts is remarkable, especially considering how violently he had opposed them as a member of the parliament of Ireland in their application to the trade of that country (*Political Arithmetick*, ch. i. p. 224; *Life of Petty*, pp. 141-205).

This silence may perhaps be put down to fear of the established powers of the state, whom he was probably afraid of offending by a too open expression of his views. A passage in DAVENANT'S works supports this explanation (*Works*, i. p. 129), which also probably accounts for so many of his writings being anonymous, as it undoubtedly does for the last portion of the *Political Arithmetick* having been kept back till after his death, when it was published by his son, Lord Shelburne (*Life of Petty*, p. 205).

Petty saw clearly that import duties should not be levied on raw materials, as the price was thereby raised to the consumer in a degree altogether beyond the revenue brought in to the state. He also desired to levy the inland revenue as much as possible on articles of which the home producer had a practical monopoly, as on them taxation could most easily be imposed without raising prices excessively (*Treatise on Taxes*, ch. vi. pp. 44-49). Nevertheless he admits "that all things ready and ripe for consumption may be made somewhat dearer than the same things made at home, only trade is not to be destroyed, or seriously hampered" (*ib.* p. 42).

In the *Quantulumcunque concerning Money* he states correctly the reasons which make the precious metals fit to be standards of value. There is an expression of opinion in the *Political Anatomy of Ireland*, ch. x., in favour of a single standard, presumably silver, considering the circumstances of the time. His works also contain a clear statement of the evils arising from confusion of coins and debasing the coinage; and from the laws

against usury. In this connection he correctly states the character of "interest" — which he calls "use money"—and "exchange," which he calls "local interest." The former, he says, is "a reward for forbearing the use of your own money for a term of time agreed upon, whatsoever need yourself may have of it meanwhile." The latter is "a reward given for having your money at such a place where you most need the use of it" (*Quantulumcunque*, Queries 28 and 29). In connection with these questions he advocates a decimal coinage (*Quantulumcunque*, Query 31), the convenience of which he points out. He understood that the quantity of money in a country which is necessary ought to depend on the number of transactions. "Money," he said in the *Verbum Sapienti*, in a happy comparison, "is but the fat of the body politick, whereof too much doth as often hinder its agility as too little makes it sick." It is in this connection that, in the *Quantulumcunque concerning Money*, he hits at the master fallacy of the mercantile system by boldly stating that superfluous coin, like any other superfluous commodity, can with advantage be exported (Queries 23-27). In order to keep the supply of money on a level with the requirements of the country from time to time he advocates the establishment of a sound banking system on the example of the banking system of Holland (*Life of Petty*, 228).

In the treatise on taxes a discussion occurs in the early part of the work on the origin of "rent," which he considers mysterious, but though he comes near to stating correctly the origin of rent, it cannot be claimed for him that he anticipated Ricardo, for he regarded rent simply as the profit of the capital invested in the land, though he saw that some lands more favourably situated than others, such as that near towns, would command a higher profit, though he does not state clearly why (*Treatise on Taxes*, ch. v.).

He was strongly impressed with the desirability of increasing the population. An increase of the people he considered was the surest sign of advancing prosperity; but he recognised — and here we see the influence of his knowledge of Ireland—that for an increase to be beneficial, it must be accompanied with a corresponding increase in the efficiency of labour. In connection with his study of the question, he made a remarkable forecast of the growth of the city of London westward (*Treatise on Taxes*, iv. 28). He had fully realised the importance of the division of labour in augmenting production. Cloth, he says, must be made cheaper when one cards, another spins, another weaves, another draws, another dresses, another presses and packs, than when all the operations above mentioned are clumsily performed by the same hand (*Political Arithmetick*, i. 224). He understood that price was founded on supply and demand, and he illustrates this by some observations on the causes of the value of diamonds at different times and in different places (Sloane MS. 2903, British Museum, *Life of Petty*, p. 223).

His economic views largely strengthened his political convictions on certain subjects. He was one of the earliest advocates of a genuine religious liberty, but he drives home the argument in favour of it by pointing out that maiming, burning, and persecuting people on account of opinion injures the state and diminishes the revenue; and that, as a rule, the *heterodox* are the most thinking, and therefore one of the most productive classes of the community; a proposition which he illustrates by the example of the Dutch (*Political Arithmetic*, ch. i. p. 227; *Life of Petty*, p. 224).

The influence of HOBBES, with whom Petty was brought into contact as a young man when studying in Paris, may be traced in the strong view taken by him of the necessity of a well-organised government, and of increasing the powers of the state; and in his hatred of the notion of any shape of *imperium in imperio*, whether lay or ecclesiastical, which would stand in the way of the legitimate development of the state (*Life of Petty*, pp. 16, 186-188). On the other hand, in his application of the test of utility to most questions, and his clear perception of the vices of the existing electoral system, he is in touch with Locke and the Whigs of the following century.

Petty, owing to several interesting experiments in ship-building connected with the "double-bottom" so often mentioned by Pepys and Evelyn, obtained the good-will of the Duke of York, and unfortunately reciprocated his confidence. Probably owing to his dislike of the extreme Protestants and Exclusion party, whom he regarded as the successors of the republicans who, in 1658, had upset the protectorate on the death of Cromwell, he was induced to trust to the assurances of the duke, when he had become king as James II., that he wished, as Charles II. had wished, to grant a general religious toleration, and would maintain the Irish settlement, in which Petty was largely interested. When, therefore, the Roman Catholic movement in Ireland—which, to say the least, was connived at by the king—showed unmistakable signs of entirely sweeping away the Protestant landowners, the disaster came as a moral as well as a material blow. He died of a gangrene in the foot on the 16th of December 1687, and was buried in the Abbey Church at Romsey.

Petty was an able mathematician, and applied his knowledge to practical ship-building. He was one of the original members of the Royal Society, and towards the end of the reign of Charles II. was appointed a Commissioner of the navy and Judge of the court of Admiralty in Ireland. He sat in the parliament of Charles II. as member for West Looe, and afterwards in the restored parliament of Ireland as member for Inistiogue.

A careful study on Petty by the German economist ROSCHER appeared in 1857 in the *Transactions of the Royal Scientific Society of Saxony* (Leipzig); and a dissertation on his works was recently presented to the Faculty of Political Science of the University of Munich by Mr. W. L. Bevan (Canterbury, 1893). The question of the authorship of the *Observations on the Dublin Bills of Mortality* is fully discussed in *Graunt or Petty*, Boston, 1896, by Professor C. H. Hull, who is preparing a complete edition of Petty's works for the Cambridge University Press. A full biography has been published by Lord Edmond Fitzmaurice (John Murray, 1895),

with extracts from Petty's correspondence. The references to the works in the notice are from a volume published at Dublin, in 1769, by Boulter Grierson, under the title of *Tracts chiefly relating to Ireland.* E. F.

PFEIFFER, J. F. VON (1718-1787), a German cameralist of the 18th century, born in Berlin, was the son of a Swiss inhabitant of that town, took part as a young officer in the first campaign of Frederick the Great, and afterwards entered the king's service as an official. Falsely accused of fraud, and pronounced innocent, he left the Prussian state service, and was for many years employed by other princes of the empire. After several more important economic journeys, he returned to Hanau, that he might devote himself to literary work.

Between 1770 and 1778 his principal work appeared, *Lehrbegriff sämmtlicher ökonomischer und Cameralwissenschaften*, 4 vols. In quick succession there followed—*Grundriss der wahren und falschen Staatskunst*, 2 vols., 1778.—*Natürliche aus dem Endzweck der Gesellschaft entstehende allgemeine Polizeiwissenschaft*, 2 vols. 1779.—*Antiphysiocrat*, 1780.—*Grundriss der Finanzwissenschaft*, 1781.—*Berichtigungen berühmter Staats- und ökonomischen Schriften dieses Jahrhunderts*, 6 vols., 1781-84. In 1782, though a Protestant, he received an appointment in the Roman Catholic university of Mainz. Four years after his death there (1787) J. N. MOSER published from materials he had left the *Grundsätze und Regeln der Staatswirthschaft*, 1791.

Inama Sternegg describes Pfeiffer as "one of the most important and perhaps the most characteristic representative of CAMERALISTIC SCIENCE" (*q.v.*). His peculiar position in the history of economics is due to his fierce opposition to the physiocratic system (see GERMAN SCHOOL OF POLITICAL ECONOMY; PHYSIOCRATS). This feeling permeates all his writings, appearing chiefly in his *Polizeiwissenschaft*, the *Antiphysiokrat*, and in the *Finanzwissenschaft*. In this the dogmas of the mercantilists are contrasted with those of the physiocrats.

Pfeiffer, whose knowledge of the physiocratic system was exclusively derived from the writings of SCHLETTWEIN, reproached the physiocrats with two errors: (1) that their system advocated an extreme cosmopolitanism, and (2) that it recommended one universal method for all conditions and climates, regardless of the peculiar features and the gradual historical development of the countries concerned. Social economy must be regulated not according to the natural condition but according to the aims of the state. The absolute freedom of nature might suit the savage state—in city-life it is a phantom. Nations ought in economic matters to be as carefully provided with a ruler as a ship is with an experienced helmsman. Trade needs, not uncontrolled, but rational freedom. Finance and administration should be associated to "the great advantage of the state." Pfeiffer compares the statesman with the agriculturist who ploughs the field, manures, and sows, while the financier concerns himself with the harvest, and supplies the necessary resources. Far from having an exclusive fiscal aim, the taxation which supplies the income of the state should be almost a secondary object to the financier. "Manufactures and trade determine themselves what course they will follow." Therefore only moderate duties should be imposed on the raw materials for home manufactures, and as far as possible they should be untaxed. The "pole star" of state policy, the object which the statesman should ever keep in view, is the rendering of home-production independent of foreign countries. The dogma of the physiocrats, that money in itself is not the true wealth of a country, is correct. Money is not actual, but only "potential wealth." ARISTOTLE (*q.v.*) rightly made merry at those who mistook thus the possession of wealth for riches. The fate of Spain and Portugal in modern times clearly shows that a country may have too much of the precious metals. This hinders the true sources of wealth, for, by a superfluity of gold tokens, wages are raised relatively to other countries, influencing thus home production unfavourably. The balance of trade could be arranged without the precious metals, for instance, by paper representatives of value. On this subject Pfeiffer had said in his *Lehrbegriff*, "money, or coined gold, silver, and copper, is not really wealth, but only an accepted token of wealth and an arbitrarily selected means for arranging an easy mode of buying and selling necessaries," *Population and Fertile Soil alone are true and Permanent Possessions* (vol. ii. pt. ii. 111). The "art of making gold" is of use so far only as it promotes the "great art of providing bread for the people" (*Grundriss*, preface).

In the last of his important works :—*Berichtigungen berühmter Staats- und ökonomischer Schriften*, Pfeiffer comments in detail on the works of the following writers :—SECKENDORFF; JUSTI; BIELFELD; SONNENFELS; SCHLETTWEIN; GENOVESI; VERRI; Victor de MIRABEAU; LETROSNE; NECKER; James STEUART, and Adam SMITH. He approved generally Smith's criticism of the physiocrats, yet considered that he failed to appreciate the taxation system of that school.

[G. A. Will, *Versuch über die Physiokraten, deren Geschichte, Litteratur, Inhalt und Werth*, 1782.—Inama Sternegg, Article "J. F. von Pfeiffer" in the *Allgemeine deutschen Biographie*.—Wilhelm Roscher, *Geschichte der Nationalökonomik in Deutschland*, 1874.] A. O.

PFENNIG (German). A small copper coin of the nominal value of one hundredth part of a German MARK (*q.v.*). F. E. A.

PHILIPS, ERASMUS (d. 1743), was author of *The State of the Nation in respect to her Commerce, Debts, and Money*, London, 1725, 8vo, 2nd ed., 1726, a work highly praised by M'Culloch, *Literature of Political Economy*, p. 351, as anticipating A. Smith and Ricardo. "A trading nation," Philips writes, "should be an open warehouse, where the merchant may either buy what he pleases or sell what he can.". In an *Appeal to Common Sense*, however, 2nd part, London, 1721, 8vo, he had declared himself in favour of bounties on certain exports, and of severe restrictions on the importation

of foreign wrought silks, etc. The *State of the Nation, etc.*, was republished in 1751, in a volume of *Miscellaneous Works* which included a series of essays called the *Country Gentleman* which imitated the *Spectator, longo intervallo.*

H. E. E.

PHILLIPS, WILLARD (1784-1873), a lawyer by profession, born in Massachusetts, was a frequent contributor to the *North American Review* in its early days, and author of *Manual of Political Economy*, 1828, and *Propositions concerning Protection and Free Trade*, 1850. The manual is an exposition of English and academic theory then current. Further experience, however, changed the author's convictions and the latter work, a systematic defence of protection in the form of seventy propositions, is of value as illustrating the intellectual exposition of protectionism at that time in the United States. D. R. D.

PHYSIOCRATIE. See PHYSIOCRATS.

PHYSIOCRATS, THE. The physiocrats were known in their own time as the ÉCONOMISTES (*q.v.*). It was one of them, DU PONT DE NEMOURS, who, in 1799 (*Introduction au Dictionnaire de géographie commerçante*), at a date when the school had hardly any original members surviving, first employed the word "physiocrats," the name by which they are still known. It was taken from the title of a collection of the works of Quesnay, published by Du Pont himself in 1767: *Physiocratie ou Constitution naturelle du Gouvernement le plus avantageux au genre humain*, with this motto—

Ex naturâ jus ordo et leges,
Ex homine arbitrium regimen et coercitio.

It is clear that *La Physiocratie* was, in the opinion of its authors, a system of government based, not on the despotism of man, on regulation and constraint, but on nature (*φύσις*), whence justice, order, and true law proceed.

Du Pont de Nemours confined the title *physiocrat* to Quesnay and his recognised disciples. It has also sometimes been applied to GOURNAY and his followers. Both the one and the other, in fact, contributed to the establishment of physiocratic doctrine, which, far from emanating fully formed from the mind of Quesnay alone, was not brought out completely in any single work, either of the master or of his pupils, but was given to the public little by little, in fragments, in pamphlets, in books, and above all, in magazine articles — continually undergoing successive modifications. To judge it fairly it is necessary to take it at the time when it had received all the improvements of which it was capable, that is to say about 1772, rather than at the time of its introduction into the world.

Gournay had been appointed *Intendant* of commerce in 1751; Quesnay became at the same time physician to the king, and opened his *entresol* to the philosophers. This date fixes nearly the origin of the formation of the doctrine. Its first elements were published by Quesnay in the *Encyclopédie*. They were then developed by all the members of the school, especially between 1763 and 1772, principally in the *Journal de l'agriculture, du commerce, et des finances*, and in the *Éphémérides du citoyen* (see ÉPHÉMÉRIDES).

The death of Quesnay and the reaction which followed the ministry of TURGOT, mark, on the other hand, the downfall of the school. Its members were scattered and no longer acted together. But during nearly a quarter of a century the physiocrats played a considerable part in France. Many distinguished men accepted their system without belonging to their school, or to their sect as it was called. During the whole of the reign of Louis XVI. the chief object of the changes in the ministry was the realisation or the delaying of the reforms which they had claimed, and, in 1789, the *Assemblée Constituante* showed itself thoroughly imbued by their doctrines, particularly as to questions of taxation.

After 1768, however, it became the fashion to sneer at them. They had opposed many private interests through combating many prejudices, monopolies, and privileges, and through advancing on several questions propositions absolutely contrary to prevailing ideas. Writers like VOLTAIRE, in *l'Homme aux quarante écus*, and GALIANI in *Dialogues sur le commerce des blés*, had ridiculed them. Their emphatic language, the praises which they mutually distributed, the defective portions of their system, were remembered rather than the discoveries which they had made, the great importance of which it was not the fashion to admit. It was recognised that most of them were worthy men, anxious for the public welfare, but their system was not taken seriously. This expression of disdain reappears in A. SMITH and J. B. SAY. "It would not, surely, be worth while," said the former, "to examine at great length the errors of a system which never has done, and probably never will do, any harm in any part of the world" (*Wealth of Nations*, bk. iv. ch. ix.). "By their rigid spirit, by their dogmatic and abstract language, by their tone of inspiration," said the second, "they give the impression that all those who have investigated economic questions are only dreamers" (*Traité d'économie politique*, Discours préliminaire).

Yet later on, in the same chapter of the *Wealth of Nations* in which the quotation given above occurs, Adam Smith speaks with warmth of the doctrines of the physiocrats. "This system, however, with all its imperfections, is perhaps the nearest approximation to the truth that has yet been published upon the subject of political economy." At the present time full justice is done to the physio-

crats, and they are generally regarded as the real founders of SOCIAL SCIENCE (*q.v.*).

The physiocrats were in fact the first who employed scientific method in directing the movement, which took place in the middle of the 18th century, of research into social phenomena—a movement comparable to that which, a little later on, led to the development of chemistry as a science.

The encyclopædists discussed the functions of government both from the political and the religious point of view. But most of them accepted witty or declamatory phrases as arguments, and abstractions as realities.

Thus ROUSSEAU, whose system also had a widespread but disastrous influence, based the origin of society on agreement among men and the social contract, and could find the source of law only in the caprice of the legislator, and railed against individual property, and inequality among men.

The method of the physiocrats was entirely different. MONTESQUIEU had asserted, in 1749, without carrying his discovery to its farthest limit, that everything in the world was governed by law—that man was governed by his laws, just as matter was governed by its laws. Gournay was drawn on by his own observations to recognise that commerce has its laws "the same over the whole of the universe," and demonstrated the advantages of freedom of labour. Quesnay went far farther, and sought to determine the laws of the principal social phenomena.

The MERCANTILE SYSTEM, the theory of which D. HUME had commenced to attack in England, was still unanimously accepted in France. There industry was in bonds, fettered by corporations of trades (*see* CORPORATIONS OF ARTS AND TRADES; GILDS; JURANDE), hindered by regulations which fixed minutely the method of manufacture; the provinces were separated from each other by INTERNAL CUSTOMS AND TOLLS (*q.v.*); commerce was hampered at the frontier by duties on imports and exports, and by prohibitions; trade in corn was subject to strict supervision; the exportation of cereals was forbidden; the peasant was overwhelmed by unequal and arbitrary taxation.

The lawfulness of lending money at interest was not recognised. Property was only regarded as a gift of the monarch; in law, and often in fact, the monarch was absolute master both of person and property. He interfered with everything, and under the pretext of protection created and supported a mass of privileges.

The physiocrats had to combat simultaneously the ideas then generally in vogue and official routine. The physical world is subject, said they, to laws which secure the equilibrium of the universe; humanity also has its laws, which ought to insure social order, and social order is only a part of universal order. If men knew these laws accurately and conformed to them, their mutual relations would regulate themselves according to justice, "that universal and sovereign rule, recognised by the light of reason, which determines incontestably what belongs to one's self and what belongs to others" (Quesnay).

The knowledge of these laws, they said further, should form a science entirely new and absolutely distinct from existing legislation, which, as shown by the contradictory and absurd laws successively enacted among nations, is only the eclectic work of the legislator.

This being so, the physiocrats demonstrated that societies are not formed by chance; that they spring from the nature of man; that far from destroying our liberty, they have allowed us to make use of it, since we cannot live and secure the continuance of our race without the help of our fellow-creatures. Our liberty and our power of action are, without question, relative; they find limits within ourselves, and limits outside ourselves. (see RELATIVITY). To suppose that we all have a right to everything, as HOBBES imagined, is as fallacious as to admit that "the swallows have a right to all the gnats that hover in the air" (Quesnay). Our rights spring from our necessities, but are limited by the rights of others. The desire for association draws us together; personal interest impels us on—these are the two forces which, apparently antagonistic, induce harmonious action; they produce order from which societies cannot deviate "without being less societies, without rendering their condition less stable" (Du Pont).

The theory of natural laws was thus set in opposition to the idea upheld by Rousseau, of the all-powerful legislator according to Lycurgus and Plutarch. This is the most interesting part of the work of the physiocrats. The language they employed had not, however, the necessary precision. Quesnay said that natural laws should procure a man whatever he needed without defining clearly what this meant. He and his disciples, identifying the effect of purely physical law with that of natural social law, maintained that every action contrary to these laws, being destructive of order, would draw down inevitable suffering on the culprit. They did not perceive that in social phenomena, actions produce repercussion which recoils on others than their authors. Besides, instead of being content with speaking of natural laws, they employed the inadequate expression of natural right, claiming that every man who comes into this world has a natural right, varying according to circumstances and ability, the right of the individual to do what is to his advantage—whence it would have been easy to deduce the right to live and the right to work, a phrase so much abused by the socialists.

Finally, they laid down the principle that every right involves a correlative and reciprocal duty, "No rights without duties, and no duties without rights" (LE MERCIER DE LA RIVIÈRE). Thus they confused the merely relative relations which constitute law with moral obligations.

But these faults only slightly impair the high value of their researches. The assertion of the existence of social order is in reality the recognition of the law of SOLIDARITY—the term is not met with in the works of the physiocrats, but the statement that man, whose needs seem special and individual, can satisfy none of them without the help of his fellow-creatures, is constantly to be found, as also that the labour of each,—that the modifications and movements (see J. S. MILL) of matter—are of advantage to all, that individual utility creates general utility by the co-operation

of all, and that the latter in its turn secures the maintenance of the former. The physiocrats were optimists, they had absolute confidence in continuity of progress. The formula "LAISSEZ FAIRE, LAISSEZ PASSER, adopted by Gournay," is one manifestation of optimism. The avowal of Quesnay and his disciples that the natural laws lead to the advantage of man is another. It was in studying the question of population that they displayed their optimism most clearly. The Marquis de MIRABEAU had said that means of subsistence are the limit of population,—that if the increase of a race depended on its fecundity, there would be no limit to its multiplication,—that the strength of a state is bounded by its population. Quesnay had made his disciple perceive that the movements of population do not necessarily follow those of the means of subsistence, and that a country is not rich if the inhabitants are not comfortable, that is to say, if the population increases more rapidly than the means of subsistence.

After him, Du Pont remarked that in the North American colonies, the population doubled itself every twenty-five years, because the amount of consumable products increases there every day, and he added, "the further one advances in the study of the order of things, there the more one is compelled to admire the reciprocal relations which unite the different portions of this immense community. Nothing stands alone there; everything holds together. Every cause is an effect, every effect is a cause. From wealth springs culture; culture increases wealth; this growth of wealth increases population; the increase of population keeps up the value of wealth itself" (1771). Again the physiocrats said that man daily makes new inventions which allow the poorest peasant in Europe to be better clothed, better lodged, and better fed than the savage; they thus refuted the supposed benefits of the "state of nature" described by J. J. Rousseau and other rhetoricians.

Thus it is through the power of individual interest, and of competition arising from it, that the physiocrats explained the continuity of progress. Gournay, in his correspondence, had often described the moral effect of competition. The disciples of Quesnay said in their turn: "Individual interest is the primary bond of society, which will be the more solid in proportion as private interest is secure. The struggle between private interests is only dangerous if accompanied by violence, whether the law permits or facilitates it, or finds its repression impossible. Governments have no right to destroy order by making war; their only duty, at home, is to repress encroachments on persons and property. Authority is not established to impose laws, they all emanate from the hand of Him who created rights and duties; positive laws ought only to be declaratory of the essential laws of social order. If the ordinances of sovereigns were opposed to the laws of nature, they would be unreasonable, and binding on no one. Authority should only employ the force of the community to compel madmen and depraved men to make their conduct conform to the principles of justice."

The duties of government being thus reduced to the protection of person and property, the maxim according to which general interest ought to outweigh individual interest should be rejected as being profitable only to monopolists and to privileged persons who wish to pass off "their special individual interests" as the general interest. The physiocrats therefore demanded the abolition of every privilege connected with classes, individuals, societies, provinces, and towns, with industry and with trade. These privileges were numerous in France—"They are of every class, of every form, and of every colour," said LETROSNE—and he drew up a long list of them.

If, the physiocrats further explained, man has a right to do whatever is to his advantage, he has the right to employ himself to his own best interest, on the sole condition that he does no injury to the person and property of others. As a free being, master of his own actions, he should be master of his own work, and of the fruits of his work; he should thus be absolute owner of the soil on which he works and with which his labour is incorporated. The three pivots of society are, property—liberty—security. From this justification of property, borrowed from LOCKE, the physiocrats deduced the right of every one to sell or buy where he pleased, and trade with whom he pleased, the objects he disposed of or needed.

Quesnay may be regarded as the first defender of free trade, the necessity of which he recognised, not only on account of considerations of right, but also for economic considerations; remarking that the greater the competition the more every one strives to economise the cost of his labour for the advantage of all. "To obtain the greatest possible increase of enjoyment with the least expense, or, better still, the least painful labour with the greatest enjoyment," is, said he, "the perfection of economic conduct."

This conclusion might have led the physiocrats very far on in economic discovery, had they not, adopting the opinion of CANTILLON, that land is the sole source of wealth, completely deceived themselves both as to the nature of wealth and the laws of its distribution. Their views on this subject may be summarised thus:—Agriculture holds a dominant place in human industry, because food is more necessary to life than anything else. Besides, agricultural labour is the only labour which increases the wealth of a country. When the expenses of cultivation, of the renewal of the working capital, the profit of the cultivator, and the seed for the following year, are deducted from the raw produce of the ground, the owner still clears an income or *produit net*. Nothing similar exists in any other industry, particularly not in those connected with articles of luxury; the purchasers of manufactured goods repay the sellers the cost of production and the profit of the traders. These goods yield nothing further, their value is approximately equal to the value of the raw materials used by the workmen and traders either for carrying on the business or for their own support—this does not yield a *produit net*. Manufactures then do not increase wealth; they exist only through the wealth of those who pay for them; that is to say, through the existence of a *produit net* arising from agriculture. Hence the inhabitants of a country may be divided into

three classes :—proprietors, who hold the *produit net;* cultivators who assist its formation; other citizens, like officials, traders, and manufacturers, who do not produce self-renewing wealth, and therefore form a "sterile class." On the ground that the proprietors of the soil hold through the *produit net* all the available revenue of the nation, Quesnay concluded that the state should claim from them, and them only, the sums necessary for the support of the government and the maintenance of public order. Every other form of taxation was, in his opinion, faulty. When a tax is charged on the consumer, his disciples repeated, the conditions of exchange are altered, and restraint is put on the liberty of every one, taxpayers are caused to include in the selling price of their products which are subject to taxation not merely the tax but the amount of their losses, of the restrictions, of the inconveniences which they have undergone. Finally as these products are bought almost entirely by the cultivators or by the landowners, the *produit net* is diminished by the sums added to the tax. Taxation diverts a number of workers from productive labour; this, again, diminishes production, and, in consequence, the *produit net.* The conclusion is that there was only one rational tax; the tax on land direct, single. "Indirect taxation, poor peasants; poor peasants, poor kingdom; poor kingdom, poor monarch," said Quesnay.

By naming the last class of the three "sterile," the physiocrats aroused the indignation of the manufacturers and traders. However, they did not intend by any means to maintain, as they have often been made to say, that manufacturers were useless. They held that this class did not help to make up the gross income which a nation needs to provide for its ever-growing necessities. In the *Tableau Économique*, Quesnay explained this. According to him the cultivators deduct yearly from the gross product of cultivation a first charge—what is necessary for their own support and that of their labourers, and for the reproduction of the crops. The landlords receive the *produit net;* they buy from the cultivators the provisions they need, giving them back thus part of the *produit net* which enables them to buy articles from the "sterile class"; the landlords on their part employ another portion of the *produit net* in purchases of the same kind. By the aid of the portions of the revenue which are thus made over to it, the "sterile class" is enabled to support itself and to work up raw material; they manufacture from this useful goods, by giving new forms to natural productions, but they do not create new wealth. "I give a length of cloth to a tailor; he will never be able to increase it so as to make out of it a coat for himself as well as for me" (Marquis de Mirabeau).

It is here that the great error of the physiocrats lies. By regarding the products drawn directly from the soil as the only wealth, they set themselves in opposition to their own justification of property. They admitted, however, that man can only avail himself of the fertility of the soil by employing labour and capital; that the "advances sunk in the land," whether for clearing the ground, for buildings, improvements as well as the "original advances" of seeds, implements, and food for man and beast—are necessary in order to make the land profitable; that, further, "annual advances" must be carried over from one harvest to another to perpetuate the pay of the workers, and to keep up the "advances made on the land." But, according to the hypothesis of the *produit net*, it was illogical to base property on labour alone, whether present or accumulated, and Turgot was more consistent when he said that the soil returned something as a pure gift beyond what was due to the labour of man. In the same way, by maintaining that the tax on the land is the only rational tax, they urged on the absorption of all property in the land by the government, because they recognised that the government becomes, through the land-tax, co-proprietor in the property of its subjects. Hence Henry George, the modern opponent of private property in land, dedicated one of his books, *Protection or Free Trade?* "to the memory of those illustrious Frenchmen of a century ago—Quesnay, Turgot, Mirabeau, Condorcet, Du Pont, and their friends, who, in the night of despotism, foresaw the glories of the coming day."

The doctrine of the *produit net* has had, however, some useful results. It attracted capital to agriculture, and helped to improve it in France. It enabled the physiocrats to disprove the system of the BALANCE OF TRADE. If Quesnay was deceived as to the nature of wealth, he saw clearly that it does not consist of money. He held up the example of Spain, exhausted, in spite of the treasures of Peru; of England, wealthy through the development of her commerce and her agriculture. Following his teaching, it is impossible, his disciples said, to create something out of nothing; in an exchange no wealth is formed, but value is given against an equal value; each party profits by the exchange, and without this the exchange would not have been made. To suppose that the balance of trade is the measure of the wealth of a country is absurd, for this balance is often met by goods and not by money, and a nation that has bought more of the precious metals than it needs will be obliged to resell, in order to buy more useful articles.

Finally, the theory of the *produit net* has called attention to the manner in which those taxes were assessed, which, like the DÎME ROYAL, were imposed merely on gross income, without taking cost of production into account, and facilitated the substitution of taxes relating to things for personal taxes. The success that the doctrine obtained was greatly due to this. In France the IMPÔT UNIQUE on land, that is to say, the direct tax on land, was accepted even by those who denied the doctrine of the *produit net.* Abroad, KARL FRIEDRICH, the Margrave of Baden, and Leopold, the Grand Duke of Tuscany, made experiments in it, with more or less successful results.

The analysis of some other economic questions was almost completed by the physiocrats. They carried some way the theory of VALUE, which Morellet clearly distinguished from UTILITY. They laid the foundation of freedom of labour, and, in a host of writings dealing with free trade in corn, examined the greater part of the phenomena of exchange. They insisted, even super-

fluously, on the dangers of prohibitions, and of protection through CUSTOMS DUTIES.

To sum up, their theories contained the germ of the whole liberal doctrine in its entirety, as they insisted before everything on the rights of the individual, in his personal liberty, in the disposal of his labour and his property. However, by a curious contradiction, while maintaining resolutely that authority ought to use force only to compel insane or depraved citizens to conform to the law, they proposed to give this authority absolute power—sole, despotic, and hereditary.

The "system of counter-balancing forces in the state," the representative system whether under a monarchy or a parliamentary republic, appeared to them to give the citizens no guarantee of liberty, because of the facilities which this system offers to the ambitious and to monopolists to further their own interests, and to legislate for their own advantage. An absolute prince, on the contrary, must always, according to the physiocrats, have a personal interest in conformity with the private interests of his subjects, if, through the single tax on land, he was induced to assist the development of the *produit net*. As a counterpoise to his power, it would be sufficient to institute an independent judiciary authority charged both with the administration of justice and with the duty of ascertaining that the commands of the sovereign were in agreement with natural laws, besides this to establish a system of public instruction sufficiently wide to enable each citizen to understand the laws of social order. The more or less veracious descriptions of China made at the time by travellers helped to confirm the physiocrats in this part of their system, defined by LE MERCIER DE LA RIVIÈRE as *despotisme légal*. Turgot always refused to accept this expression, but almost all the other physiocrats adopted it. The acceptance of this phrase, together with the doctrine of the "sterile" class, separated them from many men of sound judgment who were inclined to follow them. In the expression *despotisme légal*, no one undertook to understand what method was to be pursued to prevent government from being the means of exploiting the many in favour of private interests; they only employed a clumsy expression.

In the doctrine of the physiocrats, error constantly stood close to the verge of truth; this explains why the labours of Smith and of the ENGLISH SCHOOL caused it so soon to pass out of memory.

The author of the *Wealth of Nations* had, however, greatly profited by the labours of his predecessors; if his method was very superior to theirs, and if he was more judicious in his conclusions, it should be remembered that he applied the principle of division of labour too strictly to social phenomena, separating completely the study of wealth from the study of other social phenomena; the attempt of the physiocrats to generalise is the first essay made in the development of social science. When it is looked at carelessly, all that appears is the single tax, the "sterile" class, *produit net*, and "legal despotism," but on examining it more carefully it is seen to include a vast conception. It was worthy of being taken up again and amended; this was done by several economists of the FRENCH SCHOOL, particularly by BASTIAT.

At the present time the name of physiocrats is applied both to the disciples of Quesnay and to those of Gournay. Among the former should be named MIRABEAU, LETROSNE, LE MERCIER DE LA RIVIÈRE, BAUDEAU, ABEILLE, DU PONT DE NEMOURS, ROUBAUD, ST. PÉRAVY, De Vauvilliers, KARL FRIEDRICH the margrave of Baden. Among the latter, HERBERT, MORELLET, Clicquot-Blervâche, Bigot de Ste. Croix, l'abbé Coyer, TURGOT. But Turgot adopted many of Quesnay's views, particularly that of the *produit net*, whilst the three others devoted themselves exclusively to claiming freedom for labour, and for internal commerce as Gournay had desired (see INTERNAL CUSTOMS AND TOLLS). Finally the members of the physiocratic school did not always agree among themselves, and modified their individual opinions; thus, for instance, Du Pont, in his riper years, rejected the doctrine of legal despotism which La Rivière, Mirabeau, and Baudeau always advocated strongly. Several economists should be added to the above list, as Count GARNIER, GANILH, and DUTENS in France, SCHMALZ in Germany, who, in the 19th century, long after the physiocratic school had disappeared, defended their economic principles.

[No complete bibliography relating to the physiocrats has ever been made. But we possess portions of it, as:—

Du Pont de Nemours, a short notice of the different modern writings which collectively have assisted to form the science of political economy in France, 1769; published in the *Éphémérides:* and Oncken, *Œuvres de Quesnay.*—Morellet, catalogue in the *Prospectus d'un Nouveau Dictionnaire du commerce*, 1769.— Schelle, "Bibliographie du Du Pont de Nemours," in *Du Pont de Nemours et l'École physiocratique*, 1888.— Oncken, "Bibliographie de Quesnay," in *Œuvres de Quesnay*, Frankfurt and Paris, 1888. The following should also be consulted:—Blanqui, "Bibliographie raisonnée," in the *Histoire de l'Économie politique*, 1837.—Stourm, *Bibliographie historique des finances au XVIIIe siècle*, 1895.

Other bibliographies are to be found in M'CULLOCH, *Literature of Political Economy.— Dictionnaire de l'Économie Politique*, Coquelin and Guillaumin, 1864.— *Nouveau Dictionnaire de l'Économie Politique*, Say et Chailley, 1892; and in the present work under the headings—BAUDEAU; DU PONT DE NEMOURS; ÉPHÉMÉRIDES; FRENCH SCHOOL; GOURNAY; LAISSEZ FAIRE, LAISSEZ PASSER; LETROSNE; MERCIER DE LA RIVIÈRE; MIRABEAU; MORELLET; QUESNAY; TURGOT. The most important writings of the physiocrats have been collected by E. DAIRE in the large *Collection des principaux Économistes*, published by Guillaumin, 2 vols., containing the works of Quesnay, Du Pont, La Rivière, Baudeau, and Letrosne, with introduction, biographical notices, and commentary. In the *Petite bibliothèque économique* there is also Robineau, "Turgot, Administration et Œuvres Economiques" (the text of the *Réflexions sur les Richesses* has been revised by Schelle).— Grimaux et Schelle, "Lavoisier" (the introduction by Schelle contains a short history of economic tenets in the 18th century).— Yves Guyot, *Quesnay et la Physiocratie*. The works of Quesnay were collected by Du Pont de Nemours in the *Physiocratie* and by Oncken; the works of Turgot by Du Pont de Nemours and by Daire. *Le journal de l'agriculture, du commerce, et des finances* and *Les Éphémérides du Citoyen* contain many interesting articles.—CONDORCET, *La Bibliothèque de l'homme public*, 1790-91, 24 vols., contains extracts from writings of the physiocrats. With regard to their teaching in general, the principal works to consult are Quesnay's writings, also those of Marquis de Mirabeau:—*L'ami des hommes; Les Éléments de philosophie rurale; les Économiques; Théorie de l'impôt.*—Du Pont de Nemours, *De l'Origine et des Progrès d'une science nouvelle; Table raisonnée des principes de l'économie politique; Instructions de la paroisse de Ghevraunes.*—Le Mercier

de la Rivière, *Ordre naturel et essentiel des Sociétés politiques; l'Intérêt général de l'État.*—Baudeau, *Exposition de la Loi naturelle; Première introduction à la philosophie économique; Explication du tableau économique.*— Letrosne, *Utilité des Discussions économiques; l'administration générale et la réforme de l'impôt; De l'ordre social; De l'intérêt social.*—St. Péravy, *Mémoire sur les effets de l'impôt indirect sur le revenu des propriétaires de biens fonds.*— Abeille and Montaudouin, *Corps d'observations de la Société d'agriculture de Bretagne.*— Turgot, *Éloge de Gournay* and *Réflexions sur la formation et la distribution des richesses.*—Herbert, *Essai sur la police générale des grains.*—Morellet, *Prospectus d'un nouveau Dictionnaire du Commerce.*—The Margrave of Baden, *Abrégé des principes.*—Comte Garnier, *Abrégé élémentaire des principes de l'économie politique*, 1796.—Schmalz, *Staatswirthschaftslehre in Briefen an einen deutschen Erbprinzen*, 1818, and *Économie politique*, French edition, 1826.—Dutens, *Philosophie de l'économie politique*, 1835. Dutens defended Quesnay's economic teaching in a series of pamphlets: —*Défense de la philosophie de l'économie politique*, 1837.— *Appendice à la défense de la philosophie de l'économie politique*, 1839.— *Des prétendues erreurs dans lesquelles, au jugement des modernes économistes, seraient tombés les anciens économistes relativement au principe de la richesse nationale*, 1846. These were the latest physiocratic writings. The physiocrats had many adversaries. The following are the most interesting of their works:— Voltaire, *l'Homme aux quarante écus*, 1768, directed against La Rivière; *Diatribe à l'auteur des Éphémérides*, 1775, favourable.—Forbonnais, *Principes et observations économiques*, 1767. In the second part of this work, Quesnay's articles "Fermiers" and "Grains" are discussed.— Graslin, *Essai analytique sur la richesse et sur l'impôt*, 1767; and *Correspondance sur un des principes fondamentaux de la doctrine des économistes*, 1779, with Baudeau, on the productivity of manufactures.—Mably, *Doutes proposés aux philosophes économistes*, 1768.— Galiani, *Dialogues sur le commerce des blés*, 1770.—Necker, *Éloge de Colbert*, 1773, and *De la législation et du commerce des grains*, 1775.—Béardé de l'Abbaye, *Recherches sur les moyens de supprimer les impôts, précédées de l'examen de la nouvelle science*, 1770.—Tifaut de la Noue, *Réflexions philosophiques sur l'impôt*, 1775.—Linguet, *Théorie des Lois civiles*, 1767; *La pierre philosophale, discours économique par le lettré Koung Kia*, 1768; *Réponse aux docteurs modernes, avec la réfutation du système des philosophes économistes*, 1771; *Du Pain et du Blé*, 1774; *Théorie du libelle, ou l'art de calomnier avec fruit*, a reply to the *Théorie du paradoxe* (by Morellet), 1775; Linguet also edited the *Journal de politique et de littérature*, 1775-1778; and in conjunction with Mallet du Pan, *Annales politiques civiles et littéraires*, 1777-1791.— Isnard, *Traité des richesses*, 1781.—Pesselier, *Doutes proposés à l'auteur de la théorie de l'impôt*, 1761.—Blonde, *Lettre d'un profane à l'abbé Baudeau*, 1775.—*La Gazette du Commerce* contains articles by Forbonnais and the Abbé Yvon in opposition to the doctrine of the physiocrats. Finally, almost all treatises on political economy, from the *Wealth of Nations* onwards, include a notice of the tenets of the physiocrats. The writings of the opponents of the physiocrats have in their turn provoked many replies to their attacks, which are for the most part published in the *Éphémérides du citoyen*. The physiocrats derived some of their principles from Boisguillebert, *Le Détail de la France sous le règne présent augmenté de plusieurs mémoires et traités sur la même matière*, 1697, and from Cantillon, *Essai sur la nature du commerce en général*, 1755. The doctrine that the earth is the only source of wealth is also found in Asgill, *Several assertions proved in order to create another species of money than gold*, 1696, and there are many opinions quite in accordance with physiocratic teaching in Bandini, *Discorso economico;* but this work, written in 1737, was only published in 1775, and has been reproduced in Custodi, *Scrittori classici italiani di economica politica*, parte moderna, vol. i., with a favourable notice of Bandini by Giuseppe Gorani. With regard to the history of the physiocrats, all French histories contain an account of the influence they exercised on their country. The following may be specially noticed:—Tocqueville, *L'ancien régime et la Révolution*, ch. iii.—Taine, *Les origines de la France contemporaine*, vol. i.—Stourm, *Les finances de l'ancien régime et de la révolution*, 1885.—Monteil, *Histoire financière de la France*, with supplement by Ch. Louandre, 1872.—Biollay, *Le pacte de famine*, 1885.— Lacretelle, *Histoire du XVIIIe siècle.*—Droz, *Histoire du règne de Louis XVI.*—Sénac de Meilhan, *Le Gouvernement, les mœurs et les conditions en France avant la Révolution.*—La Harpe, *Philosophie du XVIIIe siècle.* It would be impossible to quote all the "reminiscences" and correspondence of the 18th century relating to the physiocrats. The following only can be mentioned:— *Mémoires* of Madame du Hausset, relating to Quesnay; of Louis Montigny, relating to Mirabeau; of the Baronne d'Oberkich, relating to La Rivière; of the Comte Beugnot, relating to Du Pont; of Bachaumont; of the Abbé Terray (Coquereau, *Mémoires apocryphes*); of Soulavie, on the reign of Louis XVI.; of Marmontel; of Dutens; of Garat (on Suard); of Talleyrand; of Morellet; of Condorcet (La Rochefoucauld-Liancourt, *Mémoires apocryphes*).—Baron de Gleichen, *Souvenirs.*— The *Correspondances* of Grimm and Diderot; of Métra and of La Harpe.—Pidausat de Moirobert, *L'Observateur Anglais*, containing a chapter devoted to the economists; as in the *Gazette littéraire de l'Europe.*—Galiani, *Lettres.*— *Correspondance de Condorcet et de Turgot*, 1882. A number of works deal specially with the physiocrats, as:—*Du Pont de Nemours*, some of the notes to his edition of the *Œuvres de Turgot*; *Introduction au dictionnaire de géographie commerçante.*—L. de Lavergne, *Économistes français du XVIIIe siècle.*—De Loménie, *Les Mirabeau.*—Schelle, *Du Pont de Nemours et l'école physiocratique*, 1888.—*Vincent de Gournay*, "d'après sa correspondance," 1897.— The articles "Les Physiocrates," "Quesnay," "Gournay," "Turgot," "La Rivière," "Forbonnais," etc., in the *Nouveau dictionnaire d'économie politique.*—Oncken, Introduction to the *Œuvres de Quesnay.*—"Appendice à l'histoire de la Physiocratie," in the *Handwörterbuch der Staatswissenschaften*, 1893.— "Étude sur Louis XVI. et la Physiocratie," in the *Zeitschrift für Litteratur und Geschichte der Staatswissenschaften.—Die Maxime laissez faire, laissez passer.—Der ältere Mirabeau und die ökonomische Gesellschaft in Bern*, 1886.—Joubleau, "Notice sur la Rivière," in the *Annales des sciences morales*, 1858.—Batbie, *L'homme aux quarante écus et les physiocrates*, 1865.—Reuss, *Charles Butré, physiocrate tourangeau*, 1887.—De Vroil, *Étude sur Clicquot Blervâche*, 1870.—Knies, *Karl Friedrich's von Baden Briefticher Verkehr mit Mirabeau und Du Pont*, Heidelberg, 1892.— Emminghaus, "Karl Friedrich's von Baden physiocratische Verbindungen, Bestrebungen und Versuche," in the *Jahrbücher für Nationalökonomie*, vol. xix. p. 72.—Erdmanndöffer, *Politischer Briefwechsel Karl Friedrich's von Baden*, 1888.—Bauer, "Zur Enstehung der Physiocratie," in the *Jahrbücher für Nationalökonomie*, Jena.—Blanqui, *Histoire de l'économie politique en Europe.* —Espinas, *Histoire des Doctrines économiques*, 1891.— Henry Higgs, *The Physiocrats*, London, 1897.] G. S.

PIASTRE, the 100th part of the Turkish pound (gold medjidie), and a similar fraction of the Egyptian pound. Turkish silver coins of 20 piastres (known as silver medjidies) as well as pieces of 10, 5, 2, 1, and ½ piastres form part of the currency of the Ottoman empire. These coins are all of the fineness of 830. Similar pieces, with the addition of a quarter piastre, are in circulation in Egypt, but as the sterling value of the Egyptian pound is 20s. 5d., as against 18s. 0¾d., the value of the Turkish medjidie, the Egyptian piastres are of a somewhat higher nominal value than those of Turkey. Their millesimal fineness is 833·3.

In 1879 the British government introduced into Cyprus coins known as bronze piastres and half-piastres. This piastre passes current at 1½ Turkish silver piastres, and is rated in sterling at the 180th part of a pound, or 1½d. (see Pound, Egyptian; Medjidie). F. E. A.

PIE (British Indian), the 192nd part of a rupee. A copper coin weighing 33⅓ grains. F. E. A.

PIEPOWDER COURT, the lowest known to the English law. It was a court of record

incident to every fair and market, and in it were decided cases of commercial injury arising in the fair or market actually being held, not those which happened in the preceding one. The suit was thus limited to the duration of the fair. This practically obsolete court had by stat. 17 Edw. IV., and 1 Ric. III., cognisance of all matters of contract arising within the precinct of the fair or market, and its object was speedy justice according to the *lex mercatoria* between people who, having come from distant places, might not be amenable to any one of the other inferior courts. The steward of the owner of the market tolls was the judge, and an appeal by writ of error was allowed to the courts at Westminster. In the middle ages, when the administration of justice was a direct source of revenue, these courts were an important part of the profit of the owner. At Norwich in 1306 the prior summoned, attached, distrained, and amerced offenders in his fair-court. When the fair was done, he was bound to send his prisoners to the city gaol; but if any were ultimately condemned to lose life or limb, his officers carried out the sentence (Blomefield, *Norfolk*, iii. 72, ed. 1806). The London pie-powder court was held at Cloth Fair during the time of Bartholomew fair, and Allen's *History of London*, 1827, gives the proclamation of regulations then in use. This court ceased about 1854, but the Tolsey court in Bristol and a piepowder court at Broughton-in-Furness were apparently held in 1885 (1st Rept. *Market Rights Commission*, vol. ii. p. 55, 1888).

The name is derived from *pié-poudreux*, the old French expression meaning a pedlar, but the Latin form *curia pedis pulverizati*, points to the older but false etymology.

The records of a fair-court in 1275 may be found at p. 138 of Maitland's *Select Pleas in Manorial Courts*, and an interesting 15th-cent. case is printed in Harrod's *Colchester Records*, p. 5. The original records of a piepowder court, 1732 to 1813, are among the MSS. of the corporation of Eye. R. H.

PIETRO DA ANCARANO (end of 16th century).

An Italian jurist and theologian, entertained liberal views on the lawfulness of *Monti* (municipal loans) and of the transfer of their interest-bearing bonds (*luoghi di Monte*). E. Ca.

PIGEONNEAU, H. (1834-1892), professor in the *Faculté des Lettres* and the *École des Sciences Politiques* of Paris.

Besides a publication of the reports and proceedings of the Board of Agriculture, annexed to the ministry of finance (*Procès verbaux et rapports de l'administration de l'agriculture au Contrôle Général des Finances*) during the reign of Louis XVI. (Paris, 1882) and several handbooks of geography, Pigeonneau wrote *Histoire du Commerce de la France* (Paris, 2 vols., 1885 and 1888), which won a prize from the French academy and is the only French work on the subject aiming at completeness. Owing to the untimely death of the author, it does not extend farther than the administration of Cardinal Richelieu. It conveys a very clear and adequate idea of the reactions of the political on the economic life of the nation and *vice versa*; the history of French trade being throughout considered as one of the aspects of the history of French civilisation. E. Ca.

PIGNUS. Pignus is the equivalent of the English pledge. The contract of pledge was one of the four real contracts of Roman law, and required no formality beyond the delivery of the object. Originally the creditor acquired by this contract merely a right to detain the article pledged until the debt had been satisfied. Subsequently he acquired the right of sale in case of default, and the right of foreclosure if sale proved impossible. He was bound to take strict care of the object pledged, not to make use of it for his own purposes, and either to restore to the owner any fruits or profits which it might yield, or else to deduct their value from the amount of the debt. If the sale yielded a surplus after paying principal and interest, this belonged to the debtor.

[*Institutes of Justinian*, ed. Moyle, bk. iii. pt. 14.] F. C. M.

PILLAR DOLLAR. See Dollar.

PILLET-WILL, Count (1781-1860). A Parisian banker, he filled a prominent part on the administrative boards of many important French financial and industrial establishments; he was also one of the founders and managers of the *Caisse d'Épargne*—the savings bank.

He wrote: *Rapport sur les jurandes et maîtrises* (1821); *Examen analytique de l'usine de Decazeville* (1832); *De la dépense et du produit des canaux et des chemins de fer* (1837), and several pamphlets on questions of finance. E. Ca.

PINKERTON, John (1758-1826), though strictly speaking scarcely an economist, was a miscellaneous writer whose productions are useful to the economist.

He published, among other books, *An Essay on Medals*, or *An Introduction to the Knowledge of Ancient and Modern Coins and Medals, especially those of Greece, Rome, and Britain* (London, 1784, 2 vols. 8vo; 3rd ed., London, 1808, 2 vols., 8vo). The work is referred to by M'Culloch (*Lit. of Pol. Econ.*, p. 165) as "one of the most useful publications on the subject." A. L.

PINTO, Isaac (1715-1787), born at Amsterdam, died at the Hague. He was descended from a Portuguese family and lived for some time at Bordeaux. He then settled in Holland, where he soon made a large fortune and an equally great reputation. The Stathouder William IV. (1747-51) had a very high opinion of his advice, both on administration and finance. He was as tolerant as he was high-minded, and his benevolence won him popularity.

A Jew himself, he defended his co-religionists against Voltaire. As an economist he wrote two works not without merit, though somewhat paradoxical.

These are *Essai sur le luxe considéré relativement à la population et à l'économie*, 12mo, 1762, in which the author deprecates luxury, understanding by this expression expenditure beyond income, a sense in which it is not employed at the present day, and *Traité de la circulation et du crédit*, 12mo, 1773, and 8vo, 1781, which describes stock exchange transactions. This treatise advocates public debts, which Pinto considers a cause of prosperity to a country. A. C. F.

PIPE. See MEASURES AND WEIGHTS.

PIPE ROLLS. The great or annual rolls of the exchequer (*Rotuli Magni, Rotuli Annales*) in which the royal revenue in every shire was accounted for; also known later as Pipe Rolls (*Rotuli Pipæ*), being probably so called from the likeness of a pipe (*ductus acquæ*) through which the royal treasury was filled (Pipe Roll Soc. Publications, iii. 42).

These rolls, the most ancient of our national records, are preserved in an almost unbroken series from the beginning of the reign of Henry II. to the second year of William IV., though a partial transcript only of the first-year-roll of the former reign is preserved in the Red Book of the exchequer. A still earlier roll for the thirtieth year of Henry I. exists, and is of great historical importance (Ed. Hunter, cp. Madox, *Hist. of Exch. Dissert. Epist.*). Alexander de Swereford, who resided at the exchequer in the first years of the 13th century, mentions several other year-rolls of this reign (Red Book, folios 47 and 186). There are also pipe rolls of the Duchy of Normandy (*Rotuli Normanniæ*) during the last years of the 12th century (Ed. Stapleton) and a large series of chancellor's rolls (*Rotuli Cancellarii*), being the antigraphs of the pipe rolls, exist from the ninth year of Henry II. to the third year of William IV., but the pipe rolls and chancellor's rolls of the earliest period seem sometimes to have been interchanged in the official lists.

Besides these, a third roll (*Rotulus Tertius*) was kept for a short time in the reign of Henry II. by the famous Magister Thomas Brunus, as a check upon the rolls of the treasurer and chancellor.

In the middle of the 12th century the exchequer was the most ancient and important branch of the *curia*, the only permanent and well-organised department of the state, the seat of the chancery and the receptacle of all judicial records and state papers. The pipe rolls, therefore, though the most important of the exchequer records, were by no means the only ones which then existed. With them were preserved in the iron-bound chest of the treasury of the receipt the great exactory roll (*Rotulus Exactorius*), setting forth all the fixed farms of the counties, hundreds, and royal manors; the Danegeld roll (*Rotulus Danegeldi*) the rolls of honours, or escheated baronies, tallage rolls of Jews and towns, together with an earlier series of exchequer records which are now represented from the 13th century only—the memoranda, receipt, and issue rolls and ministers' accounts. All of these were subsidiary to the making of the pipe roll of the 12th century, but before the middle of the 14th century the latter had become in turn of secondary importance to the bulky series of schedules (*compoti*) and foreign accounts (*Rotuli Peregrini*), in proportion as the royal revenue came to be drawn from customs and subsidies on merchandise rather than from the profits of the crown lands, from feudal imposts, and from judicial amercements. Moreover the chancery as a distinct department from the beginning of the 13th century relieved the pressure upon the exchequer rolls by the system of estreats which were recorded in the *Originalia* rolls.

The pipe rolls belong to the class of "headed" rolls, that is to say rolls composed of a number of membranes sewn together at one end, instead of end to end, or consecutively, like the rolls of chancery. Possibly each county was at first kept separate in the form of a "parvus rotulus" or "rotulet" as it would now be called. Elaborate directions for the choice of parchment and order of entry are contained in the *Dialogus de Scaccario* (i. 5, 8); but the feature of the pipe roll as a record lies in the fact that it was made up in open court and is a record of the actual proceedings that took place upon the conclusion of the account of every sheriff of England. Nevertheless erasures, interlineations, and other discrepancies occur from a very early period, and in the year 1236 the pipe roll of 7 Henry II. was convicted of error by a jury before the king's barons of the exchequer, and it was jocularly proposed that it should be cast into the Fleet Prison (Red Book, fol. 232).

The great roll, then, was compiled from various rolls which served at the exchequer as daybooks and ledgers, but more especially it was at first intended to comprise three several classes of payments due to the crown—(1) the king's farm, (2) the king's geld, (3) the king's debts, chiefly in respect of judicial proceedings. The above were entered in their proper sequence, the farm of the county being disposed of at the close of the account by a ceremony, the object of which was to display the amount of the farm due which was never stated in the summons to the sheriff. It is a curious fact that the amounts of the farms of the counties are not set out in any surviving record, a circumstance which is due to the loss of the exactory rolls in which they were separately entered.

Attempts have been made to ascertain the

farm by the addition of the sums paid out to those paid in, but without much success, and it will be found that the secret of the system of account lies in the deduction of the blanching money, whether blank or by tale, from every item of the disbursements. When the results thus obtained are compared with a unique fragment of an exactory roll of the reign of Henry III. they are found to agree precisely (*Red Book of Exchequer*, p. 779).

This discovery possesses considerable economic importance since it enables us to ascertain the value of the crown revenues derived from land in the 12th and 13th centuries. From the entries of payments made by the sheriffs on behalf of the crown for victuals and other necessaries, it is also possible to collect an extensive list of products of the soil and of articles of merchandise with their prices (Hall, *Court Life under the Plantagenets*, p. 221), whilst their historical and antiquarian value has been clearly shown by Mr. Eyton (*Court and Household of Henry II.*). There is an additional interest attaching to these stately records from the consideration of the influence which they must have exercised over the system of the commercial accounts in general. It seems almost certain that the king's exchequer served as a model for the transaction of business in the merchant's counting house, apparently with beneficial results, down to the end of the 15th century at least, and the influence of the old forms can be traced to a much later date. But long before this date the system of the pipe rolls had become a mere formality, though the pipe office declared accounts were an effective method of account down to the end of the reign of George III. (see EXCHEQUER; FARM OF THE COUNTIES; FARMING TAXES; FERM).

[Cunningham, *History of Industry and Commerce*, 3rd ed., ii. 2.—Hall, *Antiquities of the Exchequer*.] H. HA.

PISTAREEN, HISTORY OF. A Spanish silver coin worth about a FRANC, sometimes spelled pestereen, pistorin, or piastereen, the latter suggesting that the name is "camp" Spanish for "little piastre." Originally struck early in the 18th century, as debased provincial coins for circulation only in Spain as 2 reals of new plate, *i.e.* new standard of silver (in connection with the rating of the Spanish DOLLAR, or piece-of-eight, at 10 instead of 8 reals), this convenient token rapidly passed to America and the West Indies, where it played a great part in the local currency of the New World during the 18th and part of the 19th century. As a result of certain imperial monetary legislation in 1704, our West Indian colonies were passing, about the date of the appearance of the pistareen, from a silver to a gold currency. Being of base silver, the pistareen, unlike the standard Spanish dollar, was enabled to hold its ground in concurrent circulation with gold, and thus served, like a SHILLING or a franc, for internal and subsidiary circulation under cover of a gold standard. In 1825 in the West Indies, in 1827 in the United States, and in 1830 in Canada, steps were taken to get rid of a coin which was no longer needed, and which tended to be passed as a quarter instead of a fifth of a dollar. Consequently the pistareen, after over a century's use, was driven back to the peninsula. Its modern representative is the Spanish PESETA, equal in weight and fineness to the franc of the LATIN UNION.

[Heiss, *Monedas Hispano-Cristianas*, Madrid, 1865.—Chalmers, *History of Currency in the British Colonies*, London, 1893.] R. C.

PISTOLE. From 1537 to 1772 the gold coins of Spain were the escudo and its multiples; the double escudo or pistole; the double pistole; and the quadruple pistole or onza de oro, also known as the doubloon. The pistole weighed 104·4 grains of gold of the millesimal fineness of 916·6̇. Its intrinsic value, therefore, in sterling would be 16s. $11\frac{1}{4}$d. (1 oz. = £3 : 17 : $10\frac{1}{2}$). Pistoles formed part of the metallic currency of British colonies, in the West Indies, and of Bahamas, Canada, and New Brunswick (see DOUBLOON, HISTORY OF THE). F. E. A.

PITT, WILLIAM (1759-1806), the great statesman, was the earliest English minister to give practical effect to the theories of ADAM SMITH (*q.v.*). During the first years of his administration he laboured at reducing to order the chaos of the customs duties, and established the CONSOLIDATED FUND, though hampered during the greater part of his career by the war on the continent. In finance, he succeeded, during 1784-85—fortunately years of peace—in funding the unfunded debt, and, in the following year set on foot his scheme for reducing the national debt by means of a SINKING FUND (*q.v.*), a scheme which, afterwards, involved the borrowing of money at a high rate of interest to pay off debts contracted at a low rate. A higher title to fame rests on the negotiation of the commercial treaty with France of September 1786 (see below, and COMMERCIAL TREATIES). Pitt had been unsuccessful in his endeavours in 1785 to secure complete reciprocity between England and Ireland, having been thwarted by the jealousies of the English merchants. The merchants, however, were for the most part in favour of the French treaty. Its preamble declares the object desired was to procure the most solid advantages on both sides to the natural productions and industry, and to put an end to the contraband trade. The treaty was to remain in force twelve years. It admitted French wines into England on the same terms as those of Portugal; substituted for existing duties an "ad valorem" 12 per cent duty on cotton and woollen manufactures, and an "ad valorem"

10 per cent duty on hardwares, cutlery, iron, steel, etc., and provided that all goods, not specified, were to come under the condition of the most favoured nation clause. In case of war, subjects of either power were to have the privilege of remaining and trading, so long as they behaved peaceably. Full liberty to travel without license or passport was given to the subjects of either kingdom, as well as perfect liberty in the matter of religion. Unhappily the outbreak of war put back for many years the consummation of Pitt's ideal.

In marked contrast with this enlightened policy was Pitt's action on POOR LAW questions. It is true that he had learnt from A. Smith the necessity of a radical amendment in the law of settlement (see POOR LAW), and that the time for which he legislated was one of distress seldom paralleled in English history. Nevertheless, the results of the measure of 1796 (36 Geo. III. c. 23), which repealed so much of 9 Geo. I. c. 7 as prohibited relief being given to persons who should refuse relief in the Poor Houses set up in accordance with the provisions of that Act, and further empowered overseers, with the approbation of the parishioners, or of any justice and justices, at their discretion, to order relief to any industrious poor person, were disastrous in the extreme. "Henceforth," says Sir G. Nicholl, "outdoor relief, in some form or other, became the rule, and a source of great and universal abuse." Pitt's views on the poor law were embodied in a bill which did not advance beyond the drafting, the provisions of which included the granting of allowances in aid of wages, of advances to persons to enable them to obtain land, keep a cow, or acquire a competence in trade, and of relief to small property holders. Its proposals were mercilessly exposed by BENTHAM in *Observations on the Poor Law introduced by Mr. Pitt*, London, 1798, 8vo, privately printed (see also MALTHUS).

[Consult for Pitt's taxation measures, vol. ii. ch. viii. Dowell's *History of Taxation in England*, 4 vols. 1884.—Lecky's *History of England in 18th Century*, 1887, vol. v. pp. 294-305. For Sinking Fund: Hamilton, *On the National Debt*, 1818, 8vo.—*Speeches* of W. Pitt, 1808, 8vo, vol. i. pp. 217-237.—Lecky as above, pp. 318-330. For French Treaty: Lecky as above, pp. 307-318.—*Speeches*, vol. i. pp. 237-254.—Text in Macpherson's *History of Commerce*, vol. iv. p. 112.—*Annual Register*, vol. xxviii. pp. 266-282. For poor-law policy: Nicholl's *History of English Poor Law*, 1854, vol. ii. pp. 122-129.—*Speeches*, vol. ii. pp. 129-137.—Text of bill in Eden's *State of the Poor*, 1797, 4to, app. No. xi., No. xxi.] H. E. E.

"Pitt's object in arranging the treaty was not so much commercial as political. He thought, and rightly thought, a friendly feeling between the two great countries of England and France worth every effort which he could make. He had to meet the fierce invectives of Fox, and the stern opposition of Burke, and had to use every argument in his power to carry his measure. The commercial policy of the two nations has changed much since that period; for then the commercial policy of France was, in these respects, more liberal than that of England. Pitt's words, that he desired to lay 'a foundation for an amicable intercourse between the two countries,' reveal the motive, the very honourable motive, which was the keystone of his policy in proposing this treaty."

It received high praise from Mr. Gladstone. When introducing his own treaty with France in 1860, he described Pitt as "that greatest of all our peace ministers," and spoke of the treaty as "One of the very best and very wisest measures ever adopted by parliament, and which contributed at least as much as any passage of his brilliant career to the fame of the great statesman who introduced it."

The high duties then in force had encouraged CONTRABAND transactions so much that a large part of the trade between England and France was then in the hands of the smuggler.

"Of this fact, too, Pitt made great use in his speeches in the House of Commons on the subject of the French treaty. 'Although we had laid,' he said, 'in most instances, prohibiting duties, and in some absolute prohibitions on articles of French produce and manufacture, yet it was perfectly notorious that many of those very articles were in constant use and consumption in this kingdom.' As an instance, he mentioned the articles of French cambrics, which, though lying under a prohibition, were yet constantly worn by most persons; and, he believed, without a single exception, by every gentleman in the House. This remark shows how completely the practice of smuggling was recognised at that time, if W. Pitt had no doubt that all those who were listening to him, even in the House of Commons, habitually wore cambric which had been smuggled into the country." [See *Banker's Magazine*, March 1877.]

PLACE, FRANCIS (1771-1854), wrote *Illustrations and proofs of the principle of Population: including an examination of the proposed remedies of Mr. Malthus, and a reply to the objections of Mr. Godwin and others.* London, 1822, 8vo.

In the ten chapters of the book the author treats of the question of population as between Malthus and Godwin; of the respective populations of Sweden, and of the United States; ch. iv. discusses Mr. David Booth's "Dissertation on the Ratios of Increase in Population and in the Means of Subsistence." The author next treats of the population of ancient states; of the means of preventing the numbers of mankind from increasing faster than food is provided, with (vi. § 3) his own ideas on the subject. Place lays great stress on the misery, poverty, and crime which so frequently result from large families; and insists that it should be clearly pointed out to the poor that the market can be overstocked with labour; that this caused the low rate of wages; that misery and poverty follow indiscretion; and that by voluntary restriction of families, the supply of labour might be brought rather under the demand.

The rest of the work treats of the population of England (ch. vii., five secs.), and the decrease of mortality here; of the accumulation of capital as it conduces to the well-being of the people; and concludes by a defence of political economy as against Mr. Godwin's attacks on the science.

Other publications of Francis Place are:—*The Improvement of the Working People.*—*Drunken-*

ness.—Education, etc., London, 1834, 12mo.—*A Letter to a Minister of State, respecting Taxes on Knowledge* (by F. P.), 1831, 8vo; 3rd ed., London, 1835, 8vo.—*The Mystery of the Sinking Fund explained*, by F. P., 1821, 8vo.—*Observations on Mr. Huskisson's Speech on the Laws relating to Combinations of Workmen*, F. P., 1825.

[G. Wallas, *Life of F. Place*, 1771-1854, 8vo, 1898.] A. L.

PLANTATION. The old term by which the British colonies in Virginia, New England, and the West Indies were originally known; it was official as well as popular, and so universal in the earliest records of colonisation that it would be difficult to decide by whom it was first used.

The commission upon trade appointed by James I. in 1622, and renewed by Charles I. in 1625, seems to have been the germ of the Committee and Commissioners of Trade and Plantations (sometimes "Foreign Plantations") which are referred to not infrequently from 1630 onwards, *e.g.* in 1636 in connection with Virginia, and again in 1637 in a proclamation restraining emigration. Cromwell appointed a standing commission on trade, and Charles II. in 1660 appointed two councils, one for trade, the other for "Foreign Plantations." To the latter was assigned the duty of investigating and recording the trade and general condition of the colonies, of controlling emigration to them, and supervising their social progress. The functions of the two councils overlapped, and they were united in 1672; but the existence of the new council was precarious and sometimes suspended, till, in 1696, William III. definitely constituted the germs of the present BOARD OF TRADE (*q.v.*). Under this the plantations were administered till 1768, when a secretary of state for the colonies was first appointed. His office was popularly known as the "Plantation Office"; and when in 1781 it was abolished, that name was attached to the department of the home office which for the next twenty years administered colonial affairs.

With the close of the 18th century the term had fallen into disuse, and was gradually supplanted by the term "colonies." In the term "plantation duty" it lingered on till the year 1846.

[*Calendars of State Papers, Colonial, passim.*—Macpherson's *Annals of Commerce*, vol. iii.—*Official History of Public Departments.* (See also under COLONIES.)] C. A. H.

PLANTATION OFFICE. See PLANTATION.

PLANTATION DUTIES. This term denotes the taxes formerly levied by the British government upon its colonies or "foreign plantations" (see PLANTATION). These must not be confounded with the 4½ per cent duty levied by various West Indian legislatures on their exports (see EXPORTS, DUTIES ON). They were payable into the imperial Exchequer and were first levied in 1672 (act 25 Charles II. c. 7), on the export of certain produce of the plantations in default of a sufficient bond by the exporter to bring the produce to England or Wales, and were thus avowedly for the purpose of preventing the export of colonial produce to any foreign country. They might be levied in kind if the exporter had no ready money. The produce of the duties was small, and the first appropriation of it by parliament was made in 1699. The average annual amount which they produced during Queen Anne's reign was estimated at £1000. A variation of this idea of taxing the plantations for restrictive purposes was tried in 1733, with some idea (it is hard to say what) of favouring the sugar colonies in the West Indies: by 6 Geo. II. c. 13, duties were levied on all foreign tropical produce imported into the plantations of North America. They did not bring into the exchequer any great sum. The principle so admitted was extended in 1763 by act 4 Geo. III. c. 15, which avowed the justice of raising a revenue in the king's dominions in America for defraying the expenses of their defence and protection. These duties were levied on the importation of sugar, indigo, silks, linens, etc., into the American colonies or plantations, and for the twenty-three years up to 1787 averaged £6000 a year. In 1765, by Grenville's Stamp Act, the British government made their notorious effort to extend the principle of taxing the colonies for imperial purposes by assuming to levy internal taxation. On the failure of this scheme they fell back on the increase of the plantation [customs] duties, and in 1767 appointed a special board to administer them. In 1767 a further extension was attempted: new duties on glass, paper, painters' colours, and tea imported into the plantations were imposed, and the right to apply them for the civil government as well as for defence was asserted. These were called "port duties," and it was the duty on tea which led, in 1775, to the revolt and subsequent loss of the New England colonies. These port duties were repealed in 1778, but the other plantation duties survived, being expressly appropriated by the Consolidated Fund Act of 1787, and further recognised by various acts up to 1846, when they were abolished by the acts 9 & 10 Vict. c. 94.

[House of Commons Return, 366-I., of 1869.] C. A. H.

PLATO, the great Athenian philosopher (427-347 B.C.), does not, like his pupil ARISTOTLE (*q.v.*), reach the conception of a special "science of wealth," but in his treatment of political and ethical questions he takes account of economic conditions, and his political speculations deal to some extent, though not primarily, with economic problems. In his *Republic* (II. 369 B) he says of the state that "it comes into existence because the individual is not self-sufficing but has many

needs." The most urgent of these are food, shelter, and clothing: and so Plato goes on to picture a state or society of the simplest kind as consisting of a husbandman, a builder, a weaver, a shoemaker, and perhaps a few other craftsmen supplying their own and each other's wants. This need not be understood as if Plato thought that states actually arose in every case through different kinds of economic producers coming together and making a "social contract." The conception of the origin of society in a contract was known to him (see *Rep.* II. 359 A); it had doubtless been propounded by some of the Sophists or popular philosophers of the time. But he himself in the *Laws* (III. 676 *seq.*) puts forward very clearly the same theory of the growth of political society out of the patriarchal family, which Aristotle adopts in his *Politics* (I. 2), though, in the difficulty generally felt by the ancients of conceiving a beginning of civilisation, the patriarchal families out of which our societies are said to have been developed are supposed to be the survivors of some earlier city-states destroyed by a deluge. What Plato says in *Rep.* II. may fairly be interpreted as a recognition of the economic basis of all political society. He sees the significance of the division of labour, arguing that it is expedient that each worker should produce that commodity which he can produce best in excess of his own requirements, and exchange this commodity for the products of others, rather than that every one should distribute his time among various pursuits so as to supply all his own needs (369 E, 370 A). It is to be noted, however, that this division of labour is not based by Plato solely on the economic advantage in respect of the quality and quantity of production, but also on the supposed natural differences of individuals. "All things are produced in greater abundance and better in quality and more easily, when one man does one thing which is natural to him and does it at the right time and leaves other things alone" (370 C, cp. *Laws*, VIII. 846 E). Besides the producers of commodities directly used for the support of life, there must be producers of the instruments those workers require. And for the exchange of commodities with other states there must be merchants (*ἔμποροι*, 371 A), and for exchange within the state—Plato thinks only of a small city-state—we must have retail dealers (*κάπηλοι*, 371 D), who ought to be persons physically unfit for other kinds of labour. From the skilled producers, whom he thinks of as independent workers, Plato distinguishes as a separate class the unskilled labourers for hire.

The consideration of foreign commerce leads Plato to remark that "what they produce at home must be not only enough for themselves, but such both in quantity and quality as to accommodate those from whom their wants are supplied" (371 A). In this we may see an implicit recognition that imports and exports must balance one another. But Plato has no "mercantile theory" to lead him astray, nor to suggest the full significance of the problems of foreign trade. In the *Laws* (IV. 705 A, B) Plato expresses the opinion, like Aristotle after him (*Pol.* VII. c. 5 and 6), that a state should as far as possible be self-sufficing and not dependent on foreign imports; but he prohibits duties on imports and exports (*Laws*, VIII. 847 B). The mention of exchange in *Rep.* II. suggests the purpose of money (*νόμισμα*): "From the practice of buying and selling will arise money as a token, or conventional sign, for the sake of exchange" (*ξύμβολον τῆς ἀλλαγῆς ἕνεκα*, 371 B).

When Socrates in Plato's dialogue has described the simple sort of life which will be led in this "political society on its lowest terms" (*ἡ ἀναγκαιοτάτη πόλις*, *Rep.* 369 D), the description is scoffed at by Glaucon, one of the speakers in the dialogue, as that of a "city of pigs" (372 D). In this passage there is almost certainly an allusion to the cynic ideal of the "return to nature" and the simplification of life—a Hellenic anticipation of Rousseauism. To meet the demand of Glaucon for a more elaborate ideal, Socrates proceeds to consider a state on a larger scale. But in the discussions to which this leads, on war, education, art, religion, etc., there is nothing of specially economic interest, except the rigid division into classes which is held to be the logical consequence of the principle of division of labour, "one man, one trade." In a well-regulated state, rulers, warriors, husbandmen, artizans should each form separate classes or castes, though individuals may occasionally have to be transferred from one caste to another, when they show higher or lower capacities than those of the caste in which they are born (*Rep.* III. 412-415). Slavery would not be necessary in Plato's ideal state, where the needs of life are met by the labour of subject classes of citizens; but he seems to take for granted that there will be slaves even in his ideal state, though he objects to the enslavement of Greek by Greek (V. 469 B). The community of goods, which, along with the abolition of the private family and the admission of women to the same occupations as men, Plato holds to be necessary in the most perfect state (*Rep.* III. 416 D-417 B; IV. 423 E, 424 A; V. 449-466), is not proposed as a solution of economic difficulties. In fact Plato, as Aristotle rightly complains in *Pol.* II. 5, § 18, never discusses whether communism is to be applied to the labouring classes or not. Plato advocates communism on ethical and not on economic grounds. The philosopher-rulers of the ideal state should have no private in-

terests of property or of family to divert them from their public duties. They are to live like soldiers in barracks with common meals, etc., such as there were at Sparta. Thus if we seek for later parallels to Plato's ideal state, we should find them, not so much in any of the modern communistic or socialistic ideals — though Plato's *Republic* is directly or indirectly the parent of most of them—as in the communism of monastic orders or in the rule of the Jesuit missionaries in Paraguay (see Kaufmann, *Socialism and Communism in their Practical Application*, S.P.C.K., 1883), which, if we substitute priests for philosophers, forms the most remarkable realisation of Plato's ideal state that the world has ever seen. The state in which wealth, instead of philosophic virtue, provides the ruling principle is oligarchy—one of the corrupt forms of government. In his account of oligarchy, in *Rep.* VIII., Plato seems to be thinking mainly of commercial states such as Corinth. In such states there comes to be one city of the rich and one of the poor, and the evils of debt prepare the way for revolution and for "the tyrant" who begins by posing as "the people's friend."

In the *Laws*, which Plato wrote later than the *Republic*, and probably in his old age, he still speaks of communism of property as essential to the best state; but he is now content to work out the plan of a "second-best state" in which, giving up community of goods as too high an ideal for average human nature, he proposes equality of property in land (V. 739, 740). Citizenship is to be limited to those owning land and engaged in agriculture. The number of citizens, *i.e.* of heads of households—for the private family is retained in the second-best state—and owners of allotments, is fixed at 5040, a number convenient for subdivision (737 E, 738 A). None of the citizens is to be an artizan or to engage in trade, whether as merchant or retail dealer (VIII. 846 D; XI. 919 D). The lots of land are to be equal in value at the foundation of the state, inferior quality being compensated by larger size (V. 745 C), and the original equality is to be maintained as far as possible through regulation of the population under the advice and direction of the elder citizens. If need be, an excess of population is to be relieved by colonisation (740 D, E); a deficiency, but only in case of absolute necessity, is to be met by the admission of new citizens (741 A). Gold and silver coin are not to be owned by private persons, who are to employ a coinage current only within the state, though for the needs of intercourse with foreign countries the state must use a currency that will be accepted elsewhere (742 A). With respect to property other than land, absolute equality is regarded as unattainable. The citizens are to be divided into four classes according to their possessions, the lowest class consisting of those who have only the original lot of land; but no one is to be allowed to acquire more than four times this amount of property. Anything beyond this limit of wealth is to go to the state and "the gods of the state" (744 B-745 A). A proposal that every citizen's allotment of land should be in two sections, one nearer the city and one farther away, is adopted from quite other than economic reasons; it is a method of equalising the value of the property (745 C). This proposal is objected to by Aristotle in *Pol.* II. 6, § 15, as inconvenient; but, like very many other things in Plato's *Laws*, it is adopted by Aristotle himself in his ideal state for the same reason of equality, and in order that there may be unanimity among the citizens in case of war and threatened invasion (*Pol.* VII. 10, § 11). Though Plato prohibits the taking of interest on loans (*Laws*, XI. 921 D), and even refuses to enforce by law the repayment of borrowed capital (V. 742 C), he allows interest to be charged on overdue accounts (921 D).

Economic matters are hardly referred to in any other of Plato's dialogues. In the *Sophist* (219 A-C) a distinction is drawn between those arts which are productive or creative (*τεχναι ποιητικαί*) and those which are acquisitive (*κτητικαί*); but the subdivisions of the latter class are fanciful rather than scientific. The dichotomies of this dialogue are an ironical method of describing the nature of the sophist, and not a serious attempt at a classification of the arts. The classification of the different forms of property in the *Statesman* (*Politicus*, 287-289) are somewhat less artificial and, along with the passage in *Rep.* II. 369 B-371 E already referred to, may be regarded as preparing the way for the treatment of economics in Aristotle's *Pol.* I. 8-11.

The subject of wealth is throughout treated by Plato from the ethical point of view. He distinguishes in the scale of good things three grades: (1) the goods of the soul, *i.e.* wisdom, self-control, and the other virtues; (2) health, the good of the body; (3) wealth. The lower only exists for the sake of the higher good, and pursuit of it is always to be limited and determined by consideration for the higher. (*Laws*, V. 743 E; IX. 870 B; cp. Arist. *Eth. Nic.* I. 8, § 2).

The *Eryxias*, a short dialogue which has come down to us among the works of Plato, but which even the ancient critics agreed in considering spurious, deals with the subject of wealth in the spirit of this ethical estimate of the respective values of good things. The popular opinion that wealth consists in a quantity of money is refuted by the argument that there exist intrinsically worthless currencies, such as the leather coins or tokens used at Carthage, the worthless pieces of iron used in Lacedæmon, and the engraved stones used in Æthiopia.

The possession of quantities of such things will not make a man wealthy elsewhere (*Eryx.* 399 E-400 B). Wealth is shown to be what is *useful* to any one; what is useless to any one—*e.g.* a house to the nomad Scythian—is not wealth. More particularly wealth is found to be that class of useful things which supplies the wants of the body (400 B-401 E). The writer comes very near to putting in the additional qualification that they must be exchangeable; for he argues that those have wealth who possess arts by teaching which—"in exchange for which" (*ἀντὶ τούτων*)—they can supply their wants (402 D). But from this economic point of view he passes on to the ethical conclusion that, since he who has the fewest desires is best off, the wisest may be the richest and the rich man the worst off (405 C-406; cp. 394 A). This dialogue has been ascribed by modern scholars, but on mere conjecture, to various members of the Socratic circle, such as Simon the cobbler or Æschines Socraticus, or to a pupil of Plato or of Antisthenes. It contains nothing really inconsistent with Plato's genuine works, but it probably represents the Cynic point of view, afterwards adopted by the Stoics. We may compare the Stoic paradox elaborated by Cicero (*Paradoxa* 6)—"That the wise alone is wealthy" (*Non cupidum esse pecuniae est*). The writer, if later than Aristotle, which there seems no necessity to suppose, is in any case not influenced by *Pol.* I. 8-11. The *Eryxias*, being the oldest book we know of which isolates the subject of wealth for examination, may be called the earliest treatise on political economy; but it is so only in the sense in which Mr. Ruskin's later writings are economic treatises.

[J. Bonar, *Philosophy and Political Economy* (1893). Bk. i. ch. i. contains a full discussion of Plato.—Jowett's Translation of Plato, *third* edition, 1892, contains a translation of the *Eryxias*. On that dialogue cp. W. L. Newman's *note* on Aristotle's *Politics*, I. 9, 1257 *b*, 11, and C. Ritter, *Untersuchungen über Plato* (Stuttgart, 1888), pp. 84-86. On the influence of Plato's *Rep.*, see arts. CABET; CAMPANELLA; HARRINGTON; MORE; UTOPIAS.] D. G. R.

PLAY, LE, see LE PLAY.

PLAYFAIR, WILLIAM (1759-1823), attempted in his youth with little success to combine the positions of inventor and tradesman. He went to Paris, and in 1789 became agent to an American Land Company, the operations of which were disastrous to those sent out. On returning to London he opened a "Security" Bank, which, however, soon collapsed. After Waterloo he returned to Paris as editor of *Galignani's Messenger*, but had to leave France to avoid imprisonment on a judgment in an action for libel. His publications were very numerous; many were directed against the French, and he advocated the issue of forged assignats. In the *Gentleman's Mag.* (1823, pt. i. 564) is an imperfect list of forty-one pamphlets and books, among which, besides those mentioned below, are—

A General View of the Actual Force and Resources of France, 1793.—*Better Prospects to the Merchants and Manufacturers of Great Britain*, 1793.—*Letter to Sir Wm. Pulteney on the establishment of another Public Bank in London*, 1797.—*Statistical Tables, from the German of Boetticher*, 1800.—*Statistical Account of the U.S. from the French*, 1807.

[*The Dictionary of National Biography*, vol. 45.] H. E. E.

He published anonymously in 1785 *The Increase of Manufactures* . . . a proposal to establish a fund for lending sums of money at an interest suited to the circumstances of each case. In 1786 appeared *The Commercial and Political Atlas* (brought up to date in two successive editions 1787 and 1801), remarkable for the application of the graphical method to the statistics of finance. The method is thus introduced:—"Suppose the money that we pay in any one year for the expense of the navy were in guineas, and that these guineas were laid down upon a large table in a straight line and touching each other, and those paid next year were laid down in another straight line, and the same continued for a number of years, these lines would be of different lengths as there were fewer or more guineas; and they would make a shape, the dimensions of which would agree exactly with the amount of the sum" (*Atlas*, 1st edition; the illustration is varied in subsequent versions). By this method "as much information may be obtained in five minutes as would require whole days to imprint on the memory . . . by a table of figures." Thus ordinates at points on a horizontal line represent the amount of exports and of imports at each epoch; the difference between them—forming a stream of varying width—represents the balance of trade. That Playfair should give prominence to this conception is remarkable, as his observations on our trade with France evidence a just sense of the mutual interests of the parties to international trade.

The *Real Statement of the Finances and Resources of Great Britain*, 1796, contains some good remarks on the depreciation of money. "If money should decrease in value faster than the debts increase, then the burdens of the people, though nominally augmenting, may be actually diminishing." The rudimentary idea of an index number may be noticed in the *Appendix*, p. 29.

In the *Inquiry into the . . . Causes of the Decline and Fall of . . . Nations*, which appeared in 1805, Playfair pretends to apply his method to ancient history. In the preface he acknowledges obligation to his brother Professor John Playfair for the idea of the new method. In the same year (1805) Playfair published an edition of *Wealth of Nations*, which contains some acute criticisms; for instance, on Adam Smith's doctrine that "the more a man pays for the tax the less he can afford to pay for the rent" [of a house] (*Wealth of Nations*, bk. v. ch. ii.); and on Sir Matthew

DECKER'S observation approved by Adam Smith that "certain taxes are in the price of certain goods, sometimes repeated and accumulated four or five times" (*ib.*). These are supplementary chapters on occurrences in finance subsequent to Adam Smith's time, and on the French "Economists." Playfair evinces some acumen as an economist as well as some originality as a statistician.

The Increase of Manufactures, Commerce, and Finance, with the Extension of Civil Liberty proposed in Regulations for the Interest of Money, 1785 (anonymous).—*The Commercial and Political Atlas representing by Means of Stained Copper-Plate Charts, the Exports, Imports, and General Trade of England; the National Debt, and other Public Accounts; with Observations and Remarks.* by William Playfair, author of *Regulations for the Interest of Money*, . . . 1786 (2nd ed. 1787, 3rd ed. 1801).—*The Statistical Breviary, shewing, on a Principle entirely New, the Resources of every State and Kingdom in Europe; illustrated with Stained Copper-Plate Charts, representing the Physical Powers of each Distinct Nation with ease and perspicuity*, by William Playfair, to which is added a similar exhibition of the ruling powers of Hindostan, 1786 (and later editions).—*For the Use of the Enemies of England; a Real Statement of the Finances and Resources of Great Britain; illustrated by Two Copper-Plate Charts*, by William Playfair, inventor of Lineal Arithmetic, 1796.—*Lineal Arithmetic; applied to show the Progress of the Commerce and Revenue of England during the Present Century; which is represented by 33 Copper-Plate Charts. Being an Useful Companion for the Cabinet and Counting-House*, by William Playfair, inventor of this method of stating accounts.—*An Inquiry into the Permanent Causes of the Decline and Fall of Powerful and Wealthy Nations, illustrated by four Engraved Charts*, by William Playfair, author of *Notes and Continuation of an Inquiry into the Nature and Causes of the Wealth of Nations, by Adam Smith, LL.D., and Inventor of Lineal Arithmetic, Designed to show how the Prosperity of the British Empire may be prolonged*, 1805.—*An Inquiry into the Nature and Causes of the Wealth of Nations*, by Adam Smith, LL.D.; the eleventh edition, with notes, supplementary chapters, and a life of Dr. Smith, by William Playfair, 1805.—*A Letter on our Agricultural Distresses, their Causes and Remedies, accompanied with Tables and Copper-Plate Charts, Shewing and Comparing the Prices of Wheat Bread and Labour from 1565 to 1821.* Addressed to the Lords and Commons, by William Playfair. F. Y. E.

PLEASURE AND PAIN are the only motives taken account of in political economy in so far as "it makes entire abstraction of every other passion or motive but the desire for wealth; except those which may be regarded as perpetually antagonising principles to the desire of wealth, namely, aversion to labour and desire of the present enjoyment of costly indulgences" (Mill, *Unsettled Questions*, p. 138). This abstraction, legitimate within limits, is liable to be strained too far in several directions.

(1) Because economic action is ascribed to UTILITY, it is not to be taken for granted that, as utilitarians have postulated, all action is motived by pleasure. For perhaps "all that mathematical economics need to assume is that a material quantity of goods will be in a certain proportion to a greater or less strength of motive; whether the motive be taken as 'pleasure' or not is not essential" (Bonar, *Philosophy and Political Economy*, p. 224; cp. Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 2 note; Marshall, *Principles of Economics*, 3rd ed., pp. 77, 78, note; and *Economic Journal*, vol. iii. p. 388). However, when equilibrium is regarded as the position of greatest advantage to all concerned (cp. Marshall, *Principles of Economics*, 3rd ed., 526-527, and note xiv.), the mechanical analogue being not so much the equality of forces (conceived by Jevons in his analogy of the lever, *Theory*, ch. iv.) as the maximum of energy (indicated by Irvine Fisher in his *Mathematical Investigation*), there is taken for granted the possibility of summing up pleasures which some opponents of utilitarianism have refused to grant.

(2) For the most abstract part of economics, the theory of exchange, it need not be postulated that each party acts from self-interest, but only that he is not actuated by regard for the interest of the other parties, those with whom he competes or bargains. The efforts and sacrifices which are required to supply markets—including the labour market and the loan market—are often incurred for the sake of one's family rather than oneself. The action of the family affections "has always been fully reckoned with by economists, especially in relation to the distribution of the family income between its various members, the expenses of preparing children for their future career, and the accumulation of wealth to be enjoyed after the death of him by whom it has been earned" (*Principles of Economics*, bk. i. ch. v. § 7, 3rd ed.).

(3) The limits within which self-interested action must be postulated may be even narrower than those indicated in the last paragraph. What is postulated is that action should be regular and therefore calculable, rather than that it should be self-interested (*Principles of Economics*, bk. i. ch. v.). "The range of economic measurement may gradually extend to much philanthropic action." F. Y. E.

PLEDGE. A pledge or pawn may be defined as a bailment or delivery of personal property as security for a debt or other engagement. A pledge must be distinguished from a MORTGAGE. By a mortgage the legal property in the thing mortgaged passes to the mortgagee. But a pledge only gives a special property to the pledgee, the general property remaining in the pledgor. Hence the rights of the pledgee commence only with possession,

and a pledge consequently is not within the bills of sale acts. If the pledgor does not fulfil his engagement and redeem the pledge, the pledgee may sell it, but of course, he holds any surplus in trust for the pledgor.

A person who makes a business of receiving pledges is called a pawnbroker, and for the protection of the poor and ignorant, pledges under £10 are subject to special regulations.

[See arts. PAWN; PAWNBROKING:—the Pawnbrokers Act, 1872 (35 & 36 Vict. c. 93), and as to pledges generally, see *Story on Bailments*, tit. Pledge.] M. D. C.

PLOUGHGATE. An ancient Scots measurement of land = 8 oxgangs = 96 Scots acres (122 acres English) = about 590,400 square yards imperial. This measurement is, however, not consistently employed in the same sense in old charters (see PLOUGH-TEAM).

[Cosmo Innes's *Scotch Legal Antiquities*, p. 241.] A. D.

PLOUGH-TEAM. In Anglo-Saxon times and perhaps throughout the mediæval centuries the usual plough-team in England consisted of eight oxen, but many instances of smaller teams, even to one ox, occur in Domesday and other records, and horses were not seldom mixed with the oxen. In some parts of England the latter had not been superseded by horses at the end of the 18th century (see ARTHUR YOUNG'S *Tours*). It is probable that 120 acres were usually reckoned to one full plough, and a ploughland was the unit of land measurement. The size of the unit might and did vary, according to local custom, to the character of the soil, or to the division of the manor into two or three fields. (see THREE-FIELD SYSTEM). The word "carucate," and its subdivision "bovate" or "oxgang," express land measures in terms of the plough-team. Dependent upon its use as a measure was the use of the plough-team as the basis upon which taxation was assessed, and much of the interpretation of Domesday depends upon the right understanding of the ploughland (see PLOUGH-GATE).

[*Domesday Studies.—Domesday of St. Paul's, Introd.* p. xv.—Nasse, *Feldgemeinschaft*, p. 32, 1869.—Seebohm, *English Village Community.*] E. G. P.

PLUMART, MARQUIS DE. See DANGEUL.

PLUTOLOGY (Gr. πλοῦτος, wealth). This term was used by Courcelle Seneuil to describe that part of his treatise on political economy which dealt with what is described by some more modern writers as "pure theory"; that scientific study of the results of the action of economic motives on men and societies to which the terms "economics" and "economic science" have been applied in the effort to escape the confusions which arose from embracing under the general title "political economy," both these more abstract investigations and the application of the knowledge thus gained, with that derived from other sources, to problems of practical statemanship. To this second part of the subject the eminent French economist applied the term *Ergonomy*. The Australian W. E. HEARN adopted the title for his work, *Plutology, or the Theory of the Efforts to satisfy Human Wants.*

[Cp. *Traité Théorique et Pratique d'Économie Politique*, par J. G. Courcelle Seneuil, Tome i. Partie Théorique ou Ploutologie, Paris, 1858. *Plutology*, by W. E. Hearn, London, 1864, and also the article on HEARN in vol. ii.]. A. W. F.

PLYMOUTH ADVENTURERS, THE, received a charter from James I. in 1606, to plant all the territory on the American coast, between 34° and 45°, and the islands within 100 miles. Letters-patent were issued to Sir George Somers, Richard Hakluyt, Edward Maria Wingfield, and others who should be joined with them. Two companies were ordered to be formed, one, the first or southern colony, the other, the second or northern colony. As the council of the southern colony was composed chiefly of residents in London, it became known as the London Company, and its jurisdiction extended from Cape Fear to the eastern end of Long Island, from 34° to 41°. The northern colony was called the Plymouth Company, because its council was appointed from Plymouth and the vicinity; its limits overlapped those of the other, extending from 38° to 45°, or from about the latitude of Delaware Bay to Halifax, Nova Scotia.

As regards administration, each colony was to be governed by a resident council of thirteen, to be appointed by the king; the laws enacted by them were subject to revision either by the king or the council in England. The people were granted no part whatever in the government. Trial by jury was allowed only in cases of capital crimes, defined as "tumults, rebellion, conspiracy, meetings, and sedition, together with murder, manslaughter, incest and rape, and adultery." Lesser crimes were to be tried before the president and council, and punished according to their will. Real estate was to be held as under the laws of England (see LAND SYSTEM IN THE AMERICAN COLONIES); for the first five years all personal property and the fruits of the labours of the colonists were to be held as a common stock, and each member of the community was to be supported from the general store. The established religion was to be that of the Church of England. The people were enjoined by virtue of such penalties as the president and council might inflict, to "kindly treat the savage and heathen people in those parts, and use all proper means to draw them to the true service and knowledge of God," as well as to lead them "to good and sociable traffic." This was the first constitution of government established within the limits of the present United States.

In April 1607 the London Company founded the first permanent English colony at Jamestown, on the James River, near Chesapeake Bay. English settlers were then only learning the art of colonisation, and most of those who went to Virginia during the first few years of its existence starved to death. Others, however, took their place, and the success of the Virginia plantations was ultimately assured. Tobacco cultivation was a prominent feature. All the early colonists were men, but the company encouraged the immigration of marriageable girls, and the settlers soon found themselves bound to the soil by ties of family responsibility. Labour continued to be scarce until 1619, when the problem was partially solved by the introduction of negro slaves. But as a commercial venture, the company was still a complete failure, and in 1619 the London Company inaugurated a new era by granting a modified form of self-government to the colonists. The Company still did not prosper, however. Among the chief causes were the rapid succession of governors, stimulating the rapacity of their dependants; the multiplicity of offices, by which industry was loaded and revenue absorbed; and the inability to conduct successfully a complex and arduous undertaking by a numerous body of men.

Meanwhile the northern company, which had never been satisfied with its rights under the charter that connected them with the South Virginia Company, urged its claims to a new patent so strongly that one was granted by the king, James I., in 1620. This defined the company's territory as extending from the 40th to the 48th degree of latitude. The Virginia Company loudly remonstrated against the new patent, but in vain; Sir Ferdinando Gorges, the governor of Plymouth, Massachusetts, eloquently argued the rights of the Plymouth Company before the English parliament. He urged the value of the fishing trade, which, even while they were disputing on boundaries, might, he said, be monopolised by French or Hollanders, and those who heard him were so satisfied by his representations that, in spite of all opposing influences, the king could not be induced to revoke the patent.

The Pilgrim Fathers settled in 1620 at Plymouth; ten years later, the colony of Massachusetts was founded by the English Puritans, to provide an asylum for themselves and their friends in the event of the struggle in England going against them. The council for the New England Company, as the successor to the Plymouth Company was called, gave them a grant of land, confirmed by the king, who conceded them in addition very extensive powers of government. Before the close of the 17th century all the territory within the original limits granted to the Plymouth Adventurers had been colonised, and the settlers were given large powers of self-government.

But the original charters had been abrogated many years before this. In 1624 the Virginia charter was annulled, and the colony became a royal province. With respect to the Plymouth Company, between 1630 and 1635 serious complaints were made in England that discontented spirits full of disaffection to the king, and hostile to the Established Church, were settling on the lands granted by the company. The governor, Gorges, was attacked by the Puritans because of his large territorial claims, while in England he was assailed, as the upholder and author of the reputed licence of laws and opinions among the colonies of New England. Gorges felt this deeply after his long and arduous work in forwarding the plantation of English colonies in New England, and he "therefore was moved to desire the rest of the lords, that were the principal actors in this business, that we should resign our grand patent to the king, and pass particular patents to ourselves, of such parts of the country about the sea-coast as might be sufficient to our own uses, and such of our private friends as had affections to works of that nature." This policy was adopted in 1635, and the lands of the Company, lying between the 48th and 36th degrees of latitude, were parcelled out among its members. With this act, the history of the Plymouth Adventurers, as a separate organising and colonising body, came to a close. The Company had failed because it was unable to grapple with the religious, economic, and land problems which beset it. The king, being desirous of securing a better regulation government of the plantations appointed in 1635 a commission, with Archbishop Laud at its head, to make new laws and a new constitution for New England.

[Bryant and Gay's *Popular History of the United States*, vol. i.—Prof. Edward Channing in *Chambers's Encyclopædia* (art. United States).—Justin Winsor's *Narrative and Critical History of America.—Colonial Charters* and other documents issued by the United States Government.]

G. B. S.

POCOCKE, RICHARD (1704-1765), successively bishop of Ossory and of Meath, was one of the greatest travellers of his time. He entered Corpus Christi College, Cambridge, in 1722, and in 1733 received his LL.D. From 1733-1736 he travelled on the continent with Dean Milles, and from 1737-1742 visited the East.

In 1743-1745 he published *A description of the East and some other Countries* (2 vols. fol. London). He made other tours in Scotland, Ireland, and England, afterwards edited from his MSS. by D. W. Kemp. These publications have an interest for the economic student from the insight they afford into the social conditions of that time.

The following is a list of them:—*Tours in*

Scotland, 1747 and 1750 and 1760 . . . from the original MS. and drawings in the British Museum, edited by D. W. Kemp, with biographical sketch of the author, Edinburgh, 1887, 8vo.—*Pococke's Tour in Ireland in 1752*, edited with introduction and notes by G. T. Stokes, Dublin, 1801, 8vo.—*The Travels through England of Dr. Pococke*, 2 vols., Camden Society, N.S. xlii., xliv., 1888-1889.—*The tour of Dr. Pococke . . . through Sutherland and Caithness in 1760*, with introduction and notes by D. W. Kemp. A. L.

POINDING OF THE GROUND (Scots Law). Where a creditor has a security properly charged against the lands of his debtor and duly registered, or where he is the superior (overlord) and has a claim for feu-duties in arrears, he can, if he be not himself in possession of the lands or entitled to take possession, raise an action of poinding (empounding, pronounced pinding) of the ground, judgment in his favour in which will entitle him to the rents and to execution against all goods found on the lands, provided that these goods are the property of the owner of the land, or else that they are the property of the tenants up to the extent of the rent for the current term and of arrears of rent, if any, due by them at the time and no further. The superior poinding for feu-duties in arrears and for "casualties" is preferred to other creditors, and creditors are preferred *inter se* according to the dates of registration of their respective rights. A creditor, poinding before the trustee in bankruptcy is confirmed, gets priority over the trustee in respect of the whole movable property in the ground, to the amount of one and a half year's interest.

A. D.

POLEGRAPHY. (Greek, πωλεῖν, to sell). In the year 1870 M. H. Lefèvre, in a small treatise entitled *Traité des Valeurs mobilières*, explained in outline a graphic method of his own invention for the representation of combinations of operations on the stock or produce exchanges. This method was greatly extended and developed in the work *Le Commerce*, published by the same author some fifteen years later (the date of publication is not shown on the volume itself). Its author claims for it that it greatly simplifies the task of obtaining a clear view for practical purposes of complex combinations of exchange operations, rendering their principles much more evident than laborious illustration by numerical examples, and enabling an instructor to achieve more certain and rapid success with indifferent pupils than could be attained by ordinary methods with those of more than average intelligence, resting his claim on actual experience.

It is proposed to give here such brief outlines as may elucidate the principles of the method, and the range of its applicability, referring to M. Lefèvre's own expositions for more detailed explanations and elaborate treatment of the many leading varieties of combination and their appropriate diagrammatic presentation.

The real utility of this method is undoubtedly connected with its application to combinations of ordinary purchases and sales for future delivery with purchases and sales of OPTIONS; PUT or CALL as the case may be. The application to definitive purchases and sales for future delivery is of the simplest, but does not appear to present sufficient advantage to justify the introduction of a new method. When the option or privilege is combined with the definitive purchase or sale, a complex state of affairs results, the outcome of which can be advantageously studied with the assistance of the diagrammatic method.

The purpose of the diagram is to determine or to represent the amount of the *difference* to be paid or received as the result of a series of bargains, and it is sufficient if the gain or loss per unit dealt in be shown per £10,000 of stock, or per 50,000 bushels of wheat for example, transactions involving multiples or sub-multiples of the unit selected being readily adapted to the same diagram, as will be seen shortly.

The only apparatus necessary for the construction of the diagram is a piece of squared paper, a pen or pencil, and a ruler. Along a selected line on the paper is marked the series of possible prices of the stock or commodity dealt in, as shown in the annexed diagram (Fig. 1) where the range of price 102-104¼ of a stock is capable of representation, each movement upwards of ⅛ in the price being represented by a movement to the right by the width of one square. If we were concerned with cotton, the width of each square might represent a variation of $\frac{1}{64}$th of a penny per pound.

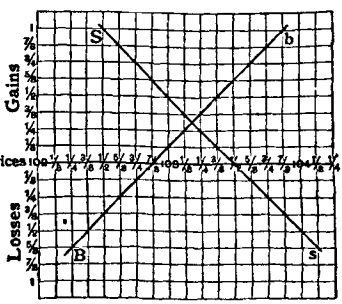

Fig. 1.—Simple purchase or sale.

The gain or loss per unit dealt in is similarly represented by distances measured upwards or downwards from this central reference *line of prices*.

The line *Bb* on the diagram represents the position of a buyer of £100 of the stock concerned at 102⅞ for the next account. If the price rise to 103¼, and he sell at that price, he will net a gain of ¼ per unit, which is represented by the fact that the line *Bb* cuts the

vertical through the point on the line of price corresponding to $103\frac{1}{8}$ at a distance $\frac{1}{4}$ on the *gains* side of that line (omitting brokerages for the present). Generally the point at which the line *Bb* cuts any particular vertical indicates the gain or loss resulting from a sale, at the price corresponding to the position of this vertical, of the stock for which the buyer contracted to pay $102\frac{7}{8}$. A glance at the diagram shows the answer to the question,—"Shall I gain or lose, and how much will the amount of such gain or loss be, if I sell at the current quotation (whatever that may be) the stock bought at $102\frac{7}{8}$?"

If we wish to include brokerages it is clear that we must add in the case of a purchase, or deduct in the case of a sale, the amount of the brokerage from the current price before constructing the diagram, or we may calculate these separately.

The line *Ss* similarly records the position resulting from a sale at $103\frac{1}{2}$ for future delivery. The *difference* to be paid or received when, for the fulfilment of the bargain, a purchase is made at some other price, being indicated by the intersection of *Ss* with the vertical through the price of the said subsequent purchase.

All this is very simple, and shows no very apparent advantage over an arithmetic record. We proceed, therefore, to deal with a combination of two purchases, and of a purchase and sale where the amounts of the two transactions are not identical. When a purchase and sale of identical amounts are combined, the resultant indicates a definite gain or loss unaffected however the market may subsequently vary. This is not the case when the sale and purchase are concerned with unequal amounts, and when two purchases or two sales are combined.

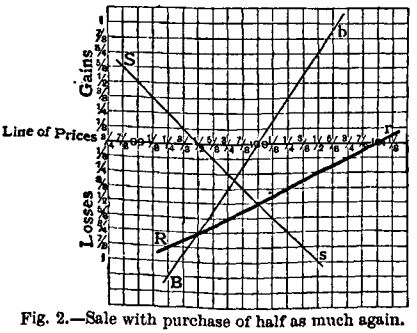

Fig. 2.—Sale with purchase of half as much again.

In Fig. 2 the line *Ss* represents, as before, a sale of one unit at, on this occasion, $99\frac{1}{2}$. *Bb* represents a purchase of half as much again at *par*. By inclining the line *Bb* so that it rises *three* squares for each *two* squares crossed in passing to the right, we represent the effect of the increase of quantity in the proportion of *two* to *three*, *i.e.* we get the case of *half as much again*. The *resultant* of the two lines *Ss* and *Bb* is *Rr*, which represents a purchase of *one-half*. To draw *Rr* we need only determine two points on it, since it is a straight line, remembering that it is to represent the *sum* of the gains or losses involved in the two transactions before named. One point on *Rr* will therefore be where *Bb* cuts the vertical through $99\frac{1}{2}$, a price which registers neither gain nor loss in respect of the transaction represented by *Ss*. Similarly a second point on *Rr* is where *Ss* cuts the vertical through 100, a price where *Bb* represents neither gain nor loss, though *Ss* shows a loss of $\frac{1}{2}$ at this price. The two transactions together are equivalent to a purchase of *one-half at 101*,—*i.e.* the operator will lose on the combination so long as the price remains below 101, the amount of the loss being only half as great as if a purchase of a unit of commodity or stock at 101 had been the actual bargain made. Fig. 3 shows the

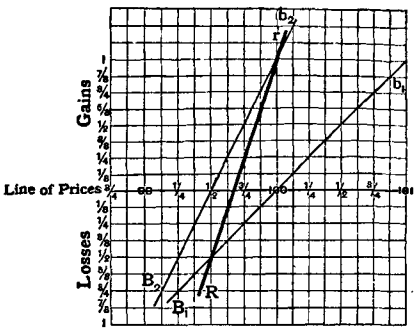

Fig. 3.—Two purchases of different amounts combined.

resultant *Rr* of the combination of the purchases B_1b_1 of a unit at *par* and B_2b_2 of two units at $99\frac{1}{2}$, which is laid down by the same rules as before. It will be found that however many purchases or sales be combined, the *resultant* is always a straight line so long as the purchase or sale is *definitive*.

The case of an option introduces a form other than the unbroken straight line for the resultant; and the combination of different option bargains among themselves, and with definitive sales or purchases, affords examples of broken lines of all degrees of complexity.

The diagrams for simple call and put options are shown in Figs. 4 and 5, the line *Ss* showing the position of the seller, *Bb* that of the buyer in each case. Fig. 4 is the case of a *call* option for which the price of $\frac{1}{2}$ per unit of the stock is paid, brokerage being neglected in this preliminary explanation of the diagram. To include brokerage, the lines representing the transactions must be lowered (*i.e.* moved bodily towards the *losses* side of the line of price) by the amount of the brokerage. In Fig. 4 then, *Bb* indicates the position of a buyer, *Ss* of a seller

of the right to demand delivery at $86\frac{3}{4}$, the price paid for that right being $\frac{1}{2}$ per cent (or per mille or other unit taken by way of

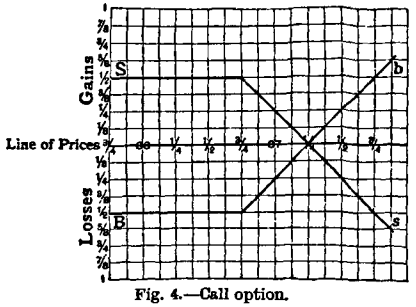

Fig. 4.—Call option.

illustration). If the price do not rise above $86\frac{3}{4}$, the buyer simply forgoes his right and loses his premium, this being the limit of his loss. If the price rise above this figure, the loss of the buyer or gain of the seller decreases, and at prices above $87\frac{1}{4}$ the option yields profit to the buyer, who can realise this profit by requiring delivery at $86\frac{3}{4}$, and selling again at the price of the day. The seller of the option, if he do not hold the stock, must purchase at the price of the day in order to fulfil his contract, and his gain turns into loss when the price rises above $87\frac{1}{4}$, more than the whole of the price received being then required to cover the difference between his buying price and the $86\frac{3}{4}$ at which he has contracted to sell. The fact that part of the lines *Ss* and *Bb* is horizontal, indicates that over the range of prices corresponding to these parts of the line the loss or gain is a fixed one, independent of the particular price.

In Fig. 5 the case of the *put* option is

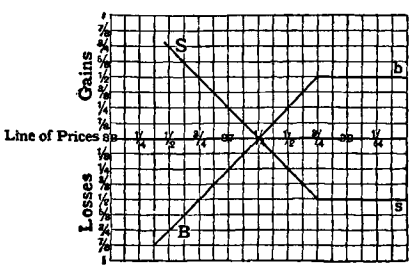

Fig. 5.—Put option.

similarly presented, *Ss* showing the seller's position with limited possibility of loss, *Bb* the buyer's position with limited possibility of gain.

The double option, or straddle, the combination of put and call, is represented in Fig. 6, which shows the position of the payer of the double price for the option. The case represented is that of the payment of a price for the option of $\frac{1}{2}$ per unit (per cent, per mille, etc., as the case may be, the diagram assumes £100 of stock as the unit) for the right to either demand delivery or require acceptance of stock at the price $93\frac{1}{2}$. At prices below $93\frac{1}{2}$ the line *Ss* sloping downwards indicates that the operator

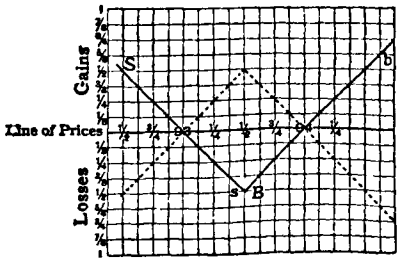

Fig. 6.—Straddle. Position of the payer of the premium shown by *SsBb*.

is a seller. At prices above $93\frac{1}{2}$ he is a buyer, as indicated by the part *Bb* of the line sloping upwards. In fact, if the price be below $93\frac{1}{2}$, the payer of the price for the option will buy in the market at the market price and sell, in accordance with his contract, at $93\frac{1}{2}$. It is clear that if the price remain between 93 and 94, the payer of the price for the option cannot recover his price for the option by his operations. At any price outside these limits he stands to gain on the whole, his gain more than covering the price paid for the option. Here again brokerages are omitted; if they are to be included, the whole line *SsBb* must be vertically lowered to the extent of the brokerages involved.

The position of the receiver of the price paid for the option would be represented by the broken unlettered line on the diagram.

Fig. 7 represents the resultant of the com-

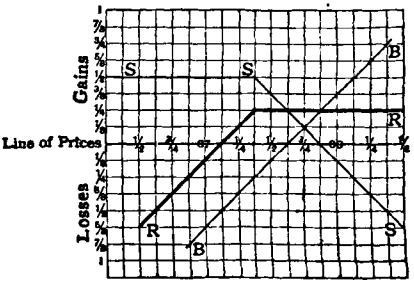

Fig. 7.—Definitive purchase combined with sale of a call option.

bination of the definitive purchase of a quantity of stock, and the sale of a call for the same quantity. The price received for the call is taken at $\frac{1}{2}$, the price at which the option may be exercised being $67\frac{3}{8}$. With this is combined a definitive purchase at $67\frac{5}{8}$, and the resultant RRR shows that the combination is equivalent to a purchase of a put at a price for the option of $\frac{1}{4}$.

The combinations of various options with one another, and with definitive purchases and

sales of stock, may be worked out in the manner adopted for this case and for those shown in Figs. 2 and 3. To the combination of any two we may add a third, then a fourth, and so on to any number. One example of the *resultant* of several transactions in which brokerage is afterwards taken into account, may serve to show both the possibilities of the method, and the strange forms which resultants may assume. This example is one given by M. Lefèvre, and refers to a number of transactions in French 3 per cent rente. The different items are as follows:

Date.	Nature of transaction.	Amount of rente concerned.	Price.	Premium.
1st	Purchase. .	3,000	86·70	
2nd	Sale of call .	12,000	87·25	25 cm.
3rd	Purchase of call	9,000	86·55	25 „
4th	Sale of call .	3,000	86·45	50 „
5th	Purchase of call	3,000	86·35	25 „
6th	Sale of call .	6,000	86·25	25 „

The individual transactions are represented by dotted lines, the unit representing 3000 francs of rente. To avoid confusion, the horizontal parts of the lines representing the options are not traced, a large dot indicating where they begin. In this case all extend to the left of the dot. It appeared also to be desirable not to continue all these dotted lines beyond the central price line, though of course they do really extend indefinitely beyond that line. The gross resultant is shown by the thin broken (or bent) line in the diagram, indicating an apparent gain to the operator so long as the price remains between 85·70 and 87·12½. This indication is greatly modified by the introduction of the brokerage of 40 francs per 3000 of rente, giving 0·48 per unit on the whole series. The depression of the resultant by the corresponding amount brings it into the position shown by the thick line on the diagram, showing an altogether different situation.

The net resultant on the diagram (Fig. 8) may be read off thus. At prices below 86·25 the operator is a buyer of 3000, between 86·25 and

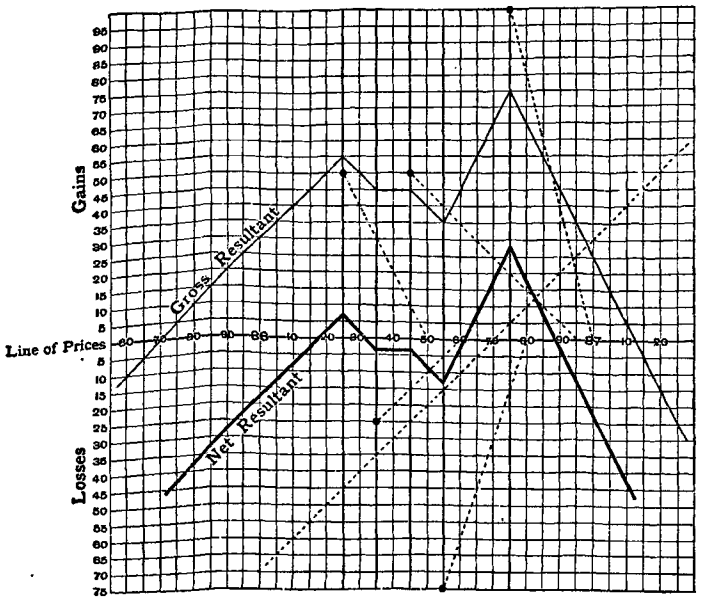

Fig. 8.—A complex combination. Brokerage included.

86·35 he is a seller of 3000, between 86·35 and 86·45 he is neither buyer nor seller, but is a loser of 3 centimes per unit, between 86·45 and 86·55 he is a seller of 3000, between 86·55 and 86·75 he is a buyer of 6000, and over 86·75 he is a seller of 6000. The positions of gain or loss realisable on making the sales or purchases necessary to cover the position thus stated are shown by the height above or depth below the central line at which the thick resultant on the diagram cuts the corresponding price vertical.

In view of the fact that simple straight lines are the only possible form of *resultant* when options form no part of the transactions, it might almost be said that this method can only be applied with real gain when options are a common form of transaction. As it appears that the option is becoming of greater importance than formerly, this fact may serve as an

excuse for explaining at this length a device which claims to render the arithmetic of such bargains more simple and intelligible.

It is scarcely needful to say that the method is applicable to dealings in wheat, cotton, iron, etc., as well as to dealings in stocks and shares.

[The only writer who appears to have treated this subject in detail is the inventor of the method, M. Lefèvre, formerly private secretary to the late Baron James de Rothschild. To his work *Le Commerce* alone, therefore, we must refer for fuller treatment, the earlier work mentioned above being both less complete in its treatment and no longer obtainable.] A. W. F.

POLICE before this century meant the internal regulations by a government; or in a secondary sense, the instruments by which or the purpose for which such regulations were enforced. Thus in HUME (*Ph. Works* (1875), iii. 298, 299), and A. SMITH (*W. of N.*, ed. M'Culloch, pp. 314, 328), it means "regulation," "the administrative," or "order." But a school of practical thinkers, mainly German, beginning with v. Osse (*Testament* (1556), ch. xx. *Von einer guten Policey*), and ending with v. MOHL (*Polizei-Wissenschaft* (1832) (1865)), and of theoretical politicians, first French, then German—under whose influence *Ordonnances pour la police* (5th May 1399; 21st Apr. 1667, etc.), *Reichs-Polizei-Ordnungen* (1442, 1530, 1577, etc.), and "Landes-Polizei-Ordnungen" (*e.g.* those of Frederick the Great) were issued—narrowed the meaning of the word on five sides. (1) in THOMASIUS' time (see *Testament*, ed. Thomasius (1717), n. 105), judicial procedure had long since been relegated to a sphere of its own. Thus the famous ordonnance of 1667 appointed a lieutenant-general of police for Paris, because the functions of police and justice hitherto combined were "often incompatible"; and Frederick the Great adopted a similar policy in order to secure judicial independence. Judicial procedure included legal capacity, the law of evidence, etc. (2) "Police" was confined to matters in which the public had an independent interest. Thus De la Mare's Preface (*Traité de la Police* (1705) and v. Bielfeld's *Institutions Politiques* (1760) write of "la police" as synonymous with "l'ordre public" or "le bon ordre de la société en général"; and Blackstone (1765) as "the due regulation and domestic order of the kingdom." And this distinction between public and private law was identified with a distinction between mutable and immutable law: "police laws vary according to place and time: laws of justice must be uniform, constant, and immutable" (Von Berg, *Handbuch des teutschen Polizei-Rechts* (1799), i. 132; Hooker, *Laws of Ecclesiastical Polity* (1594), I. x. 7, 10). (3) Hooker defined "polity"—which is the same word as police—thus: "it containeth government" (constitutional law), "and also whatever besides belongeth to the ordering of" the state "in public" (III. ii. 2); (he wrote "church" because of the adjective in the title of his book). Now these continental writers were absolutists, therefore they did not touch the larger constitutional problems which vexed English writers from LOCKE (1694) to Seeley (1896). And they treated constitutional details as administrative, so that when first principles were put into the melting-pot in 1788 men had forgotten that police once meant the law of the constitution. And further—until MONTESQUIEU (1748) French writers, until SODEN (1812) German writers, and until 1850 Prussian statesmen, blended legislative and executive duties. Locke's protest against amphibious extemporary decrees and the Code Pénal, art. 127, were aimed at this school. Now that these functions are separated by a gulf, writers on police justify their habit of looking on the legislature as ancillary to the administration by writing "dictionaries of the administration" like M. Block (1854-92), or on "administrative law" like Gneist, (1857-84), v. Stein (1865-88), Meyer (1883-93), Loening (1884), and Huc de Grais (1881-97), or administrative codes as in Portugal (1878). (4) Dithmar, first professor of "economic police and cameralistic (financial) sciences" at Frankfurt on the Oder (1727), first separated these three sciences, but only partially. They were still regarded as concentric circles of which v. SECKENDORF'S patriot king was centre, and v. JUSTI (1761) still repeated but refined v. SCHRÖDER'S epigram "police sows but finance reaps," and protective duties were still praised as the meeting-point of the three. But revenue and wealth were after all distinguished, and economy, when contrasted with police, left some scope for freedom.

Adherents of the police-school—in these first four phases—have passed upon slavery, the inquisition, censorship of the press, and Napoleonic espionage, the blessings of the scientific. Again moral, sumptuary, and usury laws, and the mediæval pricers and viewers and regulators of trade, have under its ægis survived their native gilds and towns. It has never known its limits. The Prussian code (1794) states one limit thus: the state only *supplements* self-help (ii. 17, 2). The French laws, under which the public prosecutor gets his newspapers gratis, or the mayor registers foreigners who have a business (1893), or the commissary of police attends and, in case of disorder, dissolves public meetings (1881), or some employees still need certificates of employment (1890), sound arbitrary to English ears, but represent the high-water mark of free thought and industry to the continental mind. Modern Germany, which has had a more continuous history than France, has supplemented the traditions of the police-school with the opposite principles of individualism and liberty. English economists in pursuing a reverse method—witness A. Smith and J. S. MILL'S fifth books—arrive at

a similar result. But the two schools have not yet quite met.

But it is to the police-school that we owe registrations of births, deaths, and marriages (OBRECHT, 1608), the census, the creation of peasant proprietors out of the wrecks of feudalism, Sabbatarianism, compulsory education (Prussian Code (1794), ii. 12, 43), and the idea of the duty of the state to counteract the mental superiority of employers by Employers' Liability Acts and other social legislation (Hoffman, 1841). Trade licenses also came to us through this channel, but are now mostly limited to dangerous trades (poisons, drugs, arms, etc.)—a limitation which suggests the fifth phase of the police-school.

(5) A further shrinkage of the term occurs in modern codes. (*a*) Thus the Prussian code of 1794 (ii. 17, § 10), looking at the function from the point of view of the functionary, directs the police "to take the necessary means to maintain public peace, safety, and order, and to ward off dangers to the public or any member thereof"; and the *Code des délits* (1795) takes a similar view. This definition is too wide, for, if pressed, it would include justice and education which have diminished crime, and Irish land laws which were meant to clip the wings of a "criminal conspiracy"; but it is only meant to include non-judicial measures exclusively meant to prevent dangers to life, health, morals, property, or the social organism. (*b*) The *Code Pénal*, bk. iv., identifies "contraventions de police" with offences entailing penalties of five days' imprisonment or fifteen days' fine *plus* damages, if any; Anhalt-Dess (1855), Baden (1863), Bavaria, Würtemberg, and Hesse (1871), have published codes enumerating offences against police, but the best definition of police offences is that, unlike crimes, they have nothing to do with the wish or intention of the accused. This is the vital point on which the Italian (1890), following the German (1872) penal code, lays stress; those who attempt or help crimes are guilty, and those who do not intend crimes are guiltless; those who attempt or help offences are guiltless, those who do not intend offences are guilty. From (*a*) and (*b*) we get our two modern conceptions of police, as (*a*) out-of-court criminal procedure; (*b*) as an administrative and judicial sphere of action which prevents or punishes accidents caused by human carelessness or misfortune or pure misfortune. Both conceptions are unscientific, but meet in the policeman. And of policemen there are two main varieties (W. Roscher, "Geschichte der National Oekonomik in Deutschland," in the Munich *Akademie der Wissenschaften*, vol. xiv.—Conrad Loening, etc., *Handwörterbuch zur Staatswissenschaften*, s.v. "Polizei."—A. Smith, *Lectures on Justice, Police, Revenue, and Arms*, ed. E. Cannan, 1896).

The Policeman in England.—England started with the fifth meaning of police over 600 years ago. The idea did not emerge from metaphysical mist, so that discussions about the first four meanings are irrelevant here. And in England offences and minor crimes are confused under the name misdemeanour, so that the policeman naturally takes charge of all crimes; and popular imagination, which in defiance of history conceives of the magistrate as essentially a judge of crime, associates the man fined for cleaning his bicycle in the street with wife-beaters and the like, especially when the fine is enforced by a constable armed with a distress warrant. And in England we built from the ground upward, not as in France and Lagodo, from the roof downward.

(1) In the 13th century every citizen had to arm himself, and was liable for crimes in his neighbourhood; highways had to be kept clear of bushes, etc., and town-gates closed at night (13 Edw. I. st. 2). (2) Town-bailiffs, assisted at night by hired watchmen, high constables in hundreds, and petty constables in townships, being "wardens of the peace," inspected and reported on these arrangements, and had powers of arrest which exceeded those of a citizen. The idea of the local warden of the peace takes us back to the village community. (3) In 1327 the crown appointed special "wardens of the peace" in each county, who in 1362 became criminal judges under the title "Justices of the Peace," besides being "wardens of the peace." Gradually town-bailiffs and constables of the hundred died out, and petty constables became subject to the J.P., executing and serving his warrants and summonses, whether issued by him *qua* warden or *qua* judge. The main duties of the J.P. were and are as warden. Thus to-day the J.P.s may, if some one swears, and they think there is danger, name special constables in any place in their jurisdiction (1 & 2 Will. IV. c. 41) or parish constables for a year (5 & 6 Vict. c. 109; 35 & 36 Vict. c. 92), and their nominees, unless specially exempted, must serve. They are heads of the potential, conscript constabulary. Further, they certify lunatics, "commit for trial" in serious cases, and like the inspector-constable in small misdemeanours, imprison or admit defendant to bail pending trial. In form "committal" is a trial, in substance a mere certificate that the accuser has a fair case. Again, until 1888 they were the rural local governing body, and by means of bye-laws, orders, and licenses, looked after highways, the slaughter of diseased animals, precautions against fire, etc.; they also imposed rates. Both in town and country they still hear rating assessment appeals, enforce payment of rates and orders for the removal of nuisances, etc., or, in most cases, payment therefor, these being all reckoned judicial duties; and their licenses to publicans and billiard-room keepers are a last trace of "la police des mœurs." Again they were once heads of what was called on the continent economic police. From 1562 until this century they could fix wages, enquire into apprenticeships, and act as labour-masters in an age when England was looked on as a vast workhouse; and under laws of 1709 and 1758 priced bread and inspected bakers' weights and measures (5 Eliz. c. 4; 8 Anne c. 18; 31 Geo. II. c. 29, repealed 1867)—they still may inspect weights and measures—and punished offenders. In these matters constables are or were always their assistants, for J.P. and constable are growths from

the same root, and once differed only in degree. (4) A professional police force grew up in towns, but their employers were no longer the J.P.s as such. (*a*) Under the Municipal Corporations Act, 1835, the elected mayor is J.P. for the town along with the ex-mayor and other nominees of the crown; but the mayor and elected town council cope with accidents arising from drains, buildings, fires, noxious trades, etc., by bye-laws, orders, and licenses, and a committee thereof, called the watch committee, usually control traffic by the same weapons, and always appoint a professional police force similar to that which was established in London. (*b*) London, outside the city, borrowed its first arrangements from Dublin. In Dublin, in 1723, unpaid constables elected by the parish looked after paid "supervisors of the watch" and "watchmen." In 1765 paid "inspectors" were wedged in between supervisors and watchmen. In 1777 one alderman, called by the Frenchified title "president or guardian of the police," looked after this machinery. In 1786 paid "commissioners of police," who were also J.P.s for all Dublin, hired paid constables, watchmen, and other "ministerial officers of the peace"; at the same time paid divisional magistrates were appointed. In 1795 "superintendent magistrates" replaced the commissioners. This scheme passed to London in 1792, except that the divisional magistrates acted as superintendent magistrate in each division. H. FIELDING (*q.v.*) had called attention to the need of strengthening the hands of the justices half a century before. In 1829 all the paid "watchmen and other ministerial officers of the peace" were made into constables,—superintendent, inspector, sergeant, and plain constables,—and the divisional forces were combined into one "metropolitan police force," and were governed at first by two paid non-judicial magistrates, but since 1856 by a paid commissioner and two paid assistant commissioners of police, who are non-judicial magistrates; these non-judicial magistrates may not attend quarter or general sessions, nor may they try, nor have they committed prisoners. They are appointed by the crown, and are under the home office. This system returned to Dublin in 1836, where it still exists. (*c*) A modification of these systems was introduced into counties in 1839 permissively, and in 1856 compulsorily. Until 1888 J.P.s in quarter-sessions appointed, with the approval of the home office, a paid chief constable, and determined the numbers of his force; and he, subject to the J.P.s, engaged its personnel. Now a committee of J.P.s and of the elected county council has succeeded quarter-sessions. (*d*) A similar system has been instituted in Scotch boroughs (1833) and counties (1857). (5) J.P.s and watch committees, and in the metropolis the commissioners, report annually to the home office, which sends round inspectors; only half of the pay of the police force, except in the city of London, comes from local sources, and of that half such part as comes from agricultural land is, since 1896, exempted to the extent of one-half by imperial contributions. No power is exercised by any central authority over local police authorities, nor is there any "general" police like the French gendarmes except in Ireland, outside Dublin, and most of the colonies. True, under the Police Act, 1890, § 25, different police forces may help one another if their heads agree to do so; and warrants, if "backed," bind the police in the district of the J.P. who backs them, and the lord chancellor and judges of the queen's bench division are wardens of the peace and issue warrants for all England and Wales. The police forces, though not centralised, are uniform and allied and act together.

To sum up: the duties of citizen, constable, and J.P. have for six centuries shaded off into one another, and only gradually settled down into distinct organic shapes; the last stage in the process was when watchmen *plus* amateur constables were converted into paid watchmen-constables during this century. The central link was always and is still fragile.

The powers and duties of the professional police force are all derived from their being constables, *i.e.* wardens of the peace, but are enlarged by statute law. They now include (1) *inspection* in public places. Domiciliary visits are made with the aid of a J.P.'s search warrant in case of stolen goods, sheltered criminals, etc., or by the police constable *qua* inspector under some statute. Thus he inspects public-houses, billiard-rooms, and threshing machines, and—side by side with medical officers, inspectors of nuisances, weights and measures, and markets—inspects and samples food and drugs exposed for sale; and may be ordered by the local government board to do sanitary work which sanitary inspectors leave undone. In the case of explosives there are central and local inspectors, the former appointed by the home office and the latter, a "superior officer of police." Obstruction to inspectors or constables doing their duty is a misdemeanour. (2) In *examining* the police constable is at a disadvantage, as he is instructed to caution before arresting his victim. Purely inquisitory legal proceedings are rare; of those that do exist, public inquests by coroners, or by a J.P. in pursuance of the extraordinary Explosives Act 1883, are—private examinations by factory inspectors, public enquiries by board of trade or home office into accidents are not, assisted by police constables. (3) As for *arrest*, the citizen can only arrest suspected felons if a felony has been committed, and red-handed misdemeanants if dangerous, and must arrest only if a constable requests him (*Law Reports*, i. C. C. R. 20). In addition to this, pawnbrokers, railway-guards, workhouse-masters, landowners and their keepers have certain powers in certain cases. In all these cases and some others the constable has a duty and there is no "if." An equal duty to inform against or arrest lunatics at large is cast on overseers, relieving officers, and constables by the Lunacy Act, 1890. In 1895 the constable arrested eight out of nine bad, *i.e.* indictable criminals, on his own responsibility. The inspector constable also admits trivial misdemeanants to bail before summary hearing. (4) "As to *accusation*—unless there is a special inspector charged with the duty, the head of the local police usually prosecutes offences in public places which come under his notice. As

accuser and witness he has in theory no advantage. Local heads of police also report crimes and offences to the treasury solicitor who is directed by the attorney-general to prosecute capital cases, governmental cases, our "police politique" cases reported to him by judges, etc.—amounting in all to about 1 per cent of the bad, *i.e.* indictable crimes in 1895. There is nothing in England like the Scotch procurator-fiscal or Irish attorney-general, who cover the whole or nearly the whole field of crime. (5) Provision against or in case of accidents is made by county and town councils, by their fire brigades and by so many other public local bodies, that the lost and found property office at Scotland Yard, the stretcher and necessary addresses in each station, the help to the man suddenly taken ill or strayed child, are slender reminiscences of a time when police was the sole weapon with which society fought accidents. (6) *Orders*, etc.—"Chief officers of police" license pedlars, hawkers, and sweeps; and in the London metropolis the chief commissioner licenses cab and omnibus drivers; and orders certain traffic or all through traffic out of certain streets at certain times. Otherwise bye-laws, orders, and licenses, with one or two exceptions reserved to the J.P., have drifted away to elective bodies. (7) In *civil process* police constables execute the distress warrant by which the J.P. enforces payment of rates, fines, and compensation. Indeed the constable and J.P. are for practical purposes co-extensive; consequently recent statutes which give to the J.P. certain landlord and tenant disputes where the tenant's rent is under £20 per annum, and the settlement of wage disputes of London bargemen, have made the police constable intrude into an arena for which he is unfit. (8) *Arms and discipline.*—Unlike the foreign gendarmes and Royal Irish Constabulary (outside Dublin) the English police force is non-military, does not live in barracks, and is usually unarmed except with a hidden truncheon. A month's notice of resignation is required under a penalty of *£5 plus* arrears; neglect of duty is punishable by a £10 fine or a month's hard labour. In Ireland a £5 fine is inflicted for the latter, a £10 fine or three months' hard labour for the former offence. Both in Ireland and England J.P.s—*i.e.* the masters—impose the penalty on the men, but after judicial process.

[For history and theory see P. Colquhoun, *Treatise on the Police of the Metropolis*, 1796.—J. Toulmin Smith, *The Parish*, 1857.—R. Gneist, *History of the English Constitution*, translated by P. A. Ashworth, 1891.—F. W. Maitland, *Justice and Police*, 1885.—Shaw, *Municipal Government in Great Britain*, 1895. For present law and facts see Haycraft, *Powers of the Police*, 1897.—C. M. Atkinson, *Magistrates' Annual Practice 1897.—Parliamentary Reports, Annual Judicial Statistics.*]

The Policeman in France.—The French separate administrative from judicial police, the former preventing, the latter investigating and bringing before the courts, crimes and offences. (1) The administrative police, if general, is exercised by some minister—usually the minister of the interior or home office, who instructs and orders his inferiors with or without the help of the council of state; but licensing of plays is assigned to the minister of education; inspection of weights, measures, and insanitary food to the minister of commerce; highways and public vehicles to the minister of public works, etc. Each minister acts as agent of the president of the republic. Outside Paris, the president nominates prefects of departments, who, with or without the help of the selected conseil-général of the department—issue to the public bye-laws, *arrêtés réglementaires*, or orders and licenses, *arrêtés individuels*, as to slaughter of diseased animals, precautions against fire, etc., subject to the veto of the minister concerned. "Commissaries of Police," nominated by the prefect in towns of less than 6000 inhabitants, otherwise by the president, have jurisdiction over the town or commune to which, or to part of which, they are attached. There must be one for a town of 5000 to 10,000; and one more for each additional 10,000 inhabitants. They act under the prefect in "general" and under the mayor in "municipal" police; and can command the services of the watchmen and keepers, but can only "request" officers of gendarmerie to help them. Mayors are unpaid, and elected by and from the elected town or communal council. In general police they are agents of the prefect, but are heads of "municipal" police, streets, public health, repairs, etc. They issue to the public bye-laws and orders subject to the prefect's veto; but in local finance, public works, and property, are subject to "the controul" but never to "the authority" of the town or communal council. They appoint "keepers," *gardes champêtres et forestiers*, who patrol and look after parks, forests, harvests, etc., and are under "surveillance" of the gendarmerie; and if urban, they appoint watchmen, *agents de police*, whose organisation is settled in large capital towns by the president, and being borrowed from England, always follows the English patterns of 1829-1835—thus their officers are superintendents (chefs), inspectors, and brigadiers, and they patrol the streets unarmed, and besides keeping the peace, relieve in cases of things lost or found, accidents, ignorance of the way, etc. Fire brigades are organised by communes and towns, under orders from the prefect, the superior officers being nominated by the president, and the members being soldiers under military law but subject as to their duties to the home office. The gendarmerie is the old feudal, then monarchic force; now it is, like the fire brigade, a military force told off to public duties anywhere, under the civil ministries; unlike the Prussian gendarmerie, it is also under the war office; it patrols town and country, but looks especially after the country, and acts under its officers, whose prefect or commissary "requests" the officers to act.

In the above sketch sub-prefects of arrondissements, and their elected councils, often thrust in between mayor and prefect, deputy mayors and different kinds of commissaries, are omitted. Again, the president usually acts on the advice of the home office. Again, the elected councils, originally financial and consultative, have only since 1884 advanced to the stage of "controuling" (they can never dictate to) the official in certain

cases. Again, before 1884, the mayor was a nominee of the president in important towns, and could not nominate his keepers and watchmen. Further, Paris is differently constituted. In Paris, two co-ordinate functionaries, the prefect of police and of the Seine, perform the duties usually associated with general and municipal police respectively; the gendarmes are called the garde republicaine; there are 75 commissaries attached to 80 quarters; there are 80 police stations in each quarter, under an *officier de paix*, who can command three brigades of watchmen (called "wardens of the peace," *gardiens de la paix*); and there are other commissaries and brigades told off to special duties; the superintendent of the watchmen is appointed by the prefect of police, and the *officiers de paix* by the home office (*Règlement général*, 30, 4, 1887). Lastly, inspectors of factories, whose functions since 1893 are enlarged, and of weights and measures, surveyors of bridges, and the like, who are directly under the central administration, are classed as "special police subordinates."

To sum up: administrative police occupies the entire ground of local government, *less* finance and education. It is a bureaucratic hierarchy in which executive virtue descends drop by drop from the president down to the humblest gamekeeper; and the inferior showers back incessant reports on his immediate superiors. But there are two qualifications. The mayor is now in reality as well as in name an independent centre, whence the powers of municipal police radiate. Representative councils have begun to encroach upon personal power, and in spite of their centralisation there are always two rows of police subordinates—civil and military—and the urban and rural civil police subordinates differ in origin and essentials.

(2) The judicial police include the procureur-général, procureurs de la République, juges d'instruction and juges de paix, in addition to the administrative police. Their duties are as follows: —(*a*) *Force*—Every policeman must take a criminal caught red-handed, etc.—the etc. is important—before the public prosecutor; but so must every one if requested (*Co. Pén.* 475, 12°). In other cases a police officer, *i.e.* procureur, juge, préfet, who never acts except sometimes in Paris, commissary, mayor, or officer of gendarmes, issues, and serves, and enforces by a common policeman, or usher of the court, summonses and warrants. It is a minor crime to obstruct a policeman or any one when doing their duty (*ib.* 222-24); (*b*) *Investigation*—On receipt of a written information by any one, whether aggrieved or not, the policeman questions the suspect, and examines witnesses in private. But only the police officer can invade houses; (*c*) *Proof*—Watchmen may investigate but cannot "prove." Again, sub-officers of gendarmes, keepers, "special policemen," and revenue officers, may prove certain offences and minor crimes. Again, officers other than the "procureurs," or "juges d'instruction" prove "offences," and, where the criminal is caught red-handed, etc., crimes; otherwise the procureurs, or juges d'instruction act or appoint deputies to act for them. His "proof" is signed by the officer, though he need not write it, and has at least the effects of a rule *nisi*. It is a summary of evidence as well as evidence. In this stage (*c*) the policeman has passed from administrator—through two chrysalis stages (*a*) and (*b*)—into a full-fledged member of the judicial police; (*d*) *Trial*, as a rule takes place before the juge de paix, or mayor, sitting as "juge de police," in the case of offences, proof and trial often take place at the same sitting, before the juge d'instruction in the case of minor crimes, before the assize courts in the case of major crimes. Although the "juge" thus suffers a further metamorphosis from public prosecutor into judge, these two functions must be represented by different persons in any one cause. (*e*) Some questions, *e.g.* financial assessments and some offences, *e.g.* public nuisances which require an order for removal, or for payment for removal, never come before any court, but the administration makes and vindicates the law. (*f*) *Civil process* is as a rule kept distinct, but keepers are made bailiffs of fruit, etc.

The police subordinates are quick-change artists—inspectors and detectives, servants of home office and the court, accusers, judges, soldiers—anything and everything by turns on a small scale. [F. Brayer, *Dictionnaire Général de la police administrative et judiciaire.*—M. Block, *Dictionnaire Général de l'Administration Française.*—G. Meyer, *Lehrbuch des Verwaltungs-Rechts*, 1893.—A. Shaw, *Municipal Government in Continental Europe*, 1895.—H. de Grais, *Handbuch der Verfassung und Verwaltung*, 1897.]

J. D. R.

POLITICAL ARITHMETIC. See ARITHMETIC, POLITICAL.

POLITICAL ECONOMY.

Political Economy and Science—I. Scope, p. 128. II. Method, p. 133. III. Ethics, p. 137. IV. Political Economy, Applications of Logical Conceptions to, p. 139. V. Political Economy and Psychology, p. 140. VI. Political Economy, Recent Developments of, p. 143. VII. Political Economy, Postulates of, p. 148. VIII. Political Economy, Authorities on, p. 149.

It is not intended in this article to give a summary of the descriptions and theories that are now commonly found in treatises on political economy; since such a summary, considering the extent and variety of the questions which the subject is generally held to include, and the fulness of treatment which has now become customary, could hardly be more than a dry and uninstructive table of contents. What is proposed here is rather a brief discussion of the scope and method of the study, sufficient to indicate clearly the points at which controversies arise; and, without deciding dogmatically any questions of importance on which competent thinkers are still disagreed, to contribute, if possible, to the exclusion of disputes arising from mere misunderstanding, narrowness of view, or confusion of thought.

I. SCOPE. The first thing is to define the subject of inquiry. This task is rendered a little difficult by the important changes that have taken place in the meaning of the

term "political economy," as used by leading writers, since it was first employed to denote the subject of a systematic treatise. Originally political economy was—as its name suggests—conceived to be the common portion of two arts, "economy in general" and the art of government. "Economy in general" was the art of regulating the employment of a family, or other group of human beings, so as to provide for all the wants of its members with prudence and frugality. "Political economy," accordingly, was conceived as the same art in its application to the group of human beings forming a political society or state. It was thus concerned with what was regarded as the chief *domestic* business of a statesman, whose aim should be, like a good father of a family, to provide everything necessary for supplying the wants of the society and its members, and to regulate the employment of the latter with a view to this end; due regard being had to the spirit, manners, habits, and customs of his people, and, in a free country, to their constitutional rights and liberties. This is (*e.g.*) the account of the subject given by Sir James STEUART in his treatise (*An Inquiry into the Principles of Political Economy*), published in 1767, nine years before the *Wealth of Nations*. Before the close, indeed, of the 18th century, a very different view of a statesman's duties, in relation to industry and trade, had begun to be widely taken, under the influence first of the PHYSIOCRATS (*q.v.*), and afterwards of Adam SMITH. Still, notwithstanding this fundamental change of opinion as to the maxims of economic policy, the current conception of political economy as a branch of the art of government is definitely retained by Adam Smith. "Political economy," he says, "proposes two distinct objects; first to provide a plentiful revenue or subsistence for the people, or more properly, to enable them to provide a revenue or subsistence for themselves; and secondly, to supply the state or common weal with a revenue sufficient for the public service. It proposes to enrich both the people and the sovereign." This definition, however, of the scope of the study is not given till the commencement of the fourth book of the *Wealth of Nations*; the first two books are occupied in expounding the "causes of the improvement" which the power of civilisation brings about "in the productive powers" of a nation's labour—independently of the fostering care of government; the "order according to which this produce is naturally distributed among the different ranks and conditions of men in the society"; and, in particular, the effects of the accumulation of capital, and of the different forms which capital "naturally" assumes. It is on the basis of this analysis of the "natural" process of production, distribution, and exchange of wealth that Adam Smith proceeds to frame, in the fourth book, his elaborate indictment of all endeavours of government, whether by special encouragements or special restrictions, to allot to a particular species of industry a greater or lesser share of the capital of the society than would naturally go to it. "All systems of either preference or restraint being thus completely taken away," the old conception of the art of political economy finds its main content withdrawn from it: the sovereign and the statesman are "completely discharged from the duty of superintending the industry of private people and of directing it towards the employments most suitable to the interests of the society." This being so, it is easy to understand how, under the influence of Adam Smith's epoch-making book, a new meaning was given to the old term "political economy": the study so called came to be viewed not as an investigation of the manner in which a statesman ought to regulate industry and trade, but of the manner in which industry and trade would regulate themselves if the statesman would only abstain from ill-advised meddling. Political economy, in short, came to be conceived—if we may apply a distinction that was not used with precision till later—as a part of the science of human society, rather than a part of the art of government; the guidance which the science had to give to government being, apart from questions of taxation, mainly summed up in the simple phrase "Hands off!" The sovereign was, indeed, left with the very important duties of guarding the community against invasion from without and maintaining an exact administration of justice within it; but, indispensable as these functions clearly were to the well-being of industry and commerce, it was not held to be within the purview of political economy to lay down principles for their discharge.

This changed view of the scope of the study soon found clear and distinct expression in the writings of the disciples of Adam Smith. In the influential systematic treatise of J. B. SAY (1803) political economy is defined simply as "the science which treats of wealth"; and Government is merely viewed as a great consumer, whose needs have to be supplied by taxes and loans. Similarly, the very title of RICARDO'S epoch-making work, *Principles of Political Economy and Taxation*, seems to imply that the only legitimate function of government which he discusses—taxation—is hardly regarded by him as strictly belonging to "political economy." It is true that, so late as 1821, James MILL began his *Elements of Political Economy* with the old comparison:—"Political economy," he says, "is to the state what domestic economy is to the family": . . . and just as "the art of him who manages a family consists in regulating the supply or consumption of those things which cannot be

produced but with cost," so "the same is the case with political economy." But, at the same time, the declared aim of his treatise is only "to ascertain the laws,"—meaning laws of nature, not laws of man,—which regulate the production, distribution, exchange, and consumption of commodities that cannot be obtained without human labour: that is, James Mill introduces the subject as an art, and then proceeds to announce that it will be treated as a science. With more clearness of view, N. W. SENIOR, in 1837, saw the necessity of dividing the "science of political economy" into two great branches: (1) the theoretical, which "explains the nature, production, and distribution of wealth"; and (2) the practical, of which the office is to "ascertain what institutions are most favourable to wealth." And some years later, in a compendious treatise on political economy, as a "pure science" (written originally for the *Encyclopedia Metropolitana*), SENIOR, with a consciousness that he was narrowing the traditional meaning of the term, proposed to confine the name of political economy to the theoretical branch of the subject; leaving the practical branch to be absorbed in the general art of government. As this view of the scope of the study became, on the whole, the prevalent view among English economists, it may be convenient to examine briefly the arguments by which Senior justifies the innovation. He begins by fully recognising the importance of the questions which the practical branch of political economy, as previously conceived, attempts to answer. Inquiries, he says, as to the means by which the industry of man may be rendered more productive by the action of government, the distribution of wealth most desirable in a given state of society, the means by which any given country may facilitate such a distribution—such inquiries are undoubtedly of great interest. But they "no more form part of the science of political economy than navigation forms part of the science of astronomy. The principles supplied by political economy are indeed necessary elements in their solution, but they are not the only or even the most important elements. . . . They involve, as their general premises, the consideration of the whole theory of morals of government, and of civil and criminal legislation; and for their particular premises, a knowledge of all the facts which affect the community which the economist proposes to influence." The statesman, he explains, who has practically to solve these questions, must consider all the causes which may promote or impede the general welfare of the society for which he proposes to legislate; the political economist, whose systematic attention has been concentrated on wealth, "has considered only one, though the most important, of those causes": accordingly his scientific conclusions, however true, "do not authorise him in adding a single syllable of advice." His business as a political economist "is neither to recommend nor to dissuade, but to state general principles which it is fatal to neglect, but neither advisable nor perhaps practicable to use as the sole or even the principal guides in the conduct of affairs." Substantially the same view was expressly adopted by J. S. MILL, though the plan of his popular and influential *Principles of Political Economy* is not framed in accordance with it. With characteristic eclecticism, while he includes in his treatise a discussion of the questions of the old art of political economy—even with some startling enlargements—he does not introduce these discussions as belonging to political economy strictly: but as mingling political economy with social philosophy. The same view was also effectively expounded, some years later, by J. E. CAIRNES in his *Lectures on the Character and Logical Method of Political Economy*, with still more pronounced antagonism to the older view than even Senior had shown. "Political economy," says Cairnes, "stands neutral between competing social schemes, as the science of mechanics stands neutral between competing plans of railway construction, as chemistry stands neutral between competing plans of sanitary improvement": it has, accordingly, "nothing to do with *laissez faire*." And since Cairnes, the majority of English writers who have regarded political economy as a scientific study have taken substantially the same view of its scope.

There is no doubt much force in the arguments of these writers, so far as they tend to the conclusion that the art of political economy, according to Adam Smith's use of the term, cannot be completely separated from the general art of government. It is certainly true that in deciding practical questions of public finance—or of governmental action, in matters of industry and trade, on other than financial grounds—it is often necessary to take into account other considerations besides the effects of the proposed measures on the production and distribution of wealth; and that sometimes these other considerations are more important than those with which political economy is concerned. But to refuse therefore to recognise an art of political economy at all, even as a partially distinct branch of a larger whole, was a more drastic measure than these arguments justified; and it was certainly exposed to the drawbacks involved in any attempt to change the long-established meaning of a familiar term. To tell the readers of Adam Smith—for the *Wealth of Nations* has never ceased to be widely read—that "political economy has nothing to do with *laisser faire*," was too daring a paradox; and it certainly has not been very

successful in dispelling the popular confusion between theory and practice which it was intended to clear away. The "laws of political economy" are still liable to be "disobeyed" in the ordinary discourse even of well-educated persons; indeed in 1888, an eminent judge (Lord Bramwell), presiding over the economic section of the British Association at Bath, enunciated with confident brevity the old-fashioned view of the subject. "What will be the best way to add to the wealth of a society must be a subject of study by that society, which will lay down rules—that is make laws—for the purpose; and this is political economy. Adam Smith was not the first political economist, though well called the father of those rules which now prevail. But rules for the purpose existed before him, the great objection to them being that most of them were wrong. There was a law that the dead should be buried in woollen . . . laws were made for fixing wages . . . laws against regrating and forestalling . . . usury laws . . . you cannot deny that these were economical laws because you think them wrong." There can be no doubt that the interest of Adam Smith's book for ordinary readers is largely due to the decisiveness with which he offers to statesmen the kind of practical counsels which, according to Senior and Cairnes, he ought carefully to have abstained from giving; perhaps therefore, in view of long-established usage, it will be found more easy to avoid any confusion between "laws of nature" and "laws of human legislation" in relation to the production and distribution of wealth, if we grant the study of both a place within the pale of political economy, while carefully distinguishing the science or theoretical branch of the subject from the art or practical branch.

And this conclusion will receive further support if we see reason to regard the science of political economy as only a partially distinct branch of the general science of society, just as the art is only a partially distinct branch of the general art of government. This, no doubt, was not the view taken by Senior, Cairnes, and their followers. According to the former, while the sciences which supply the rational basis for the art of government have premises drawn from an infinite variety of phenomena, the premises of the science of political economy consist of a very few general propositions; from which, as he holds, the political economist can draw conclusions universally true in respect of the production of wealth, and as regards its distribution, can at any rate "lay down the natural state of things as a general rule," without turning his attention to any elements of social life beyond the process of producing and exchanging wealth. The scientific value of such deductive reasonings will be considered later; what we have now to observe—a point apparently overlooked by Senior and Cairnes—is that the practical arguments in favour of the "system of natural liberty," urged by Adam Smith and his successors, may similarly be presented as deductions from a few premises, representing familiar facts of human experience and not requiring any wide study of social phenomena. Thus it may be argued, first, that from the universality of the desire for wealth, the superior opportunities that each individual has—as compared with any other person—of learning what conduces best to the satisfaction of his wants, and the keener concern he has for such satisfaction, any sane adult may be expected to discover and aim at his own economic interests better than government will do this for him. Then, this being granted, it may be argued secondly that consumers in general—*i.e.* the members of the community generally in the character of consumers—seeking each his own interest intelligently, will cause an effectual demand for different kinds of products and services, in proportion to their utility to society; while producers generally, seeking each his own interest intelligently, will be led to supply this demand in the most economic way, each one training himself or being trained by his parents for the most useful, and therefore best rewarded, services for which he is adapted. Then, keeping within the same narrow lines of analysis and deduction, we may show how in certain cases, such as that of industrial monopoly, the general argument for the coincidence of private interest with the interest of the community fails. All these arguments may be worked out in considerable detail, without touching on any social facts beyond those considered in the science delineated by Senior—the nature of wealth, the general causes of changes in the value of purchasable commodities, the universal desire to obtain such commodities at the least possible sacrifice, and the rational activities to which this desire may be assumed to prompt intelligent persons under various conditions.

It will be replied that this kind of general reasoning cannot by itself enable us to solve any of the practical problems of economic legislation; because such problems, as Cairnes says, often "present other aspects than the purely economical—political, moral, educational, artistic aspects;—and these may involve consequences so weighty as to turn the scale against purely economic solutions." In saying, however, that there are "few" practical problems which do not present extra-economical aspects, Cairnes seems to go too far; since there are certainly some important departments of economic legislation, *e.g.* banking and currency, in which a statesman would usually come to

his conclusions on purely economic grounds. Still no doubt his statement is largely true; even in matters of taxation and public finance, other than strictly economic aims have often to be taken into account,—for instance the actual plan of taxation in England is partly determined by the general conviction that alcoholic drinking is dangerous to health and morals. But, granting that *effects* not strictly economic have to be taken into account in some of the concrete problems belonging to the practical branch of political economy, it is no less true that in some of the concrete problems of economic science *causes* not strictly economic cannot be overlooked. Suppose, for instance—to take the leading question of the *Wealth of Nations*,—we compare the productiveness of the labours of one country at the present time with that of another, or with the productiveness of its own labour at an earlier period—there is no one of the extra-economical elements of social life mentioned by Cairnes which may not come into consideration; political systems, moral opinions and habits, educational methods, artistic faculties and tastes, each in turn may become important. And no general rule can be laid down as to the extent to which these other elements are to be taken into account; since their relations to industry and trade vary indefinitely in closeness and importance in different economic inquiries.

The difficulty of completely separating the science of political economy from the general science of society may be illustrated by examining more closely the definition of the social relations and activities with which political economy is primarily concerned. From Adam Smith downwards they have been commonly conceived as activities and relations connected with wealth; and by writers of this century have usually been classed under the four heads—Production, Distribution, Exchange, and Consumption; or under three of the four, one or other of the last two being often omitted as a separate head. This division of subjects is perhaps a little confusing, as it is partly understood to represent a division of processes; the machinery of exchange—bills, currency, banking—being commonly treated under the third head. But when wealth is said to be "produced" by human labour, it is not matter that is brought into existence but some adaptation of external matter to human needs and desires; and this adaptation is carried on through the whole process of conveyance and exchange, until the "product" passes into the consumers' possession and political economy hands it over to domestic economy. So again Distribution—the division of the produce into the shares distinguished as wages, rent, interest, profit—is mainly performed through Exchange, so far as it is an actual and not merely ideal division. But when we look closer at the facts denoted by these two latter terms, we see that what is distributed through exchange in modern communities is not merely the aggregate of material commodities which we commonly call the "produce" of labour; but also the services of professional persons—physicians, lawyers, ministers of religion, educators, actors, etc.—whose labour is not spent in adapting external matter to human needs and desires, but in ministering to those needs and desires in some other way. Now, if the political economist were to extend his inquiries to the causes which render the supply of medical, legal, educational, ecclesiastical, and dramatic services more ample or better in quality in one age and country than in another, his science could hardly be prevented from becoming almost coextensive with the general science of society; especially if he also included governmental services, which in modern communities are mostly paid, and may legitimately be regarded as obtained by the public in exchange for part of the proceeds of the taxes. This extension of the subject is avoided, in treating the topic of Production, by confining attention primarily to the application of human labour to external matter; and only, under this head, taking note of educational or medical services, or the activities connected with the administration of justice, so far as they have an important bearing on the efficiency of industry in the narrower sense. But from the point of view of Distribution and Exchange a somewhat wider survey is properly taken; as the economic aspect of other social activities—at any rate so far as their remuneration is determined by competition and free contract—cannot be excluded from consideration without obvious incompleteness. For instance, in investigating the causes that determine the amount of employers' profits, the competition of the professions with business for men of ability is an element that cannot be ignored.

To sum up: Political economy, as commonly studied, has included a theoretical and a practical branch, which it is important to distinguish clearly, since there is a popular disposition to confound their respective premises and conclusions. For brevity, it seems convenient to refer to them as the science and the art of political economy; the latter being historically the subject to which the term was mainly applied in its earlier use, whereas among English political economists of the present century there has been a tendency to restrict it to the former. The science of political economy deals with a certain class of social activities and relations, the study of which can with advantage be partially separated from the study of the rest; but the separation is only partial, most other social activities having, as competitively remunerated, an economic aspect, as well as

more or less influence on the activities with which political economy is more specially concerned. The degree of separation between the science of political economy and the general science of society it is well to leave somewhat indefinite, partly because it differs importantly in different inquiries, partly because the general science of society is at present in a rudimentary condition and struggling towards a fuller development,—each step in which is not unlikely to alter somewhat its actual relations to the special sciences which are, ideally speaking, its branches.

Similarly the art of political economy, which deals with a special department of governmental interference, designed to improve either the social production of wealth or its distribution, may be partially, but only partially, separated from the general art of legislation or government. Here, again, the degree of separation varies considerably according to the nature of the problems considered; but on the whole the connection of the art with the more comprehensive art of which it is a part is closer than the corresponding connection in the case of the science. This is partly due to the fact that the general art of government, though its development is not very advanced, has hitherto received considerably more attention than the general science of society. H. S.

II. METHOD. In the discussion of the scope of political economy we have had to anticipate in some measure the discussion of its method, since the two questions cannot be altogether separated. We now pass to concentrate attention on the latter question, on which express differences of opinion have been more strongly accentuated. Whether the method of political economy is "inductive" or "deductive," and if inductive, how far it is "historical," and whether so far as it is deductive it is "hypothetical" or "positive," and to what extent its more exact reasonings ought to assume a mathematical form —these questions have, in times not long past, given rise to prolonged and sometimes bitter controversy. The polemical treatment of them, however, in England at least, seems lately to have given way to a general prevalence of a more balanced and conciliatory view; and in fact the long sustainment of the controversy seems to have been partly due to misunderstandings and confusions, and partly to inadvertence in applying to the whole of the subject general statements that are only true of *some* of the reasonings included in it.

The most fundamental misunderstanding appears to have arisen from a confusion between the method of the science and the method of the art, as above distinguished. Two distinct propositions, one being important as a premise in the deductive reasonings of the science, the other in the *rationale* of the leading rules of the art, have been more or less blended together—under some such name as individualism or economic egoism—or at any rate regarded as logically inseparable, and forming part of one doctrine. Whereas in reality, though there is a certain affinity between them, there is no sort of logical connection; and though each of them is only true with important limitations and qualifications, the required limitations are quite different in the two cases. The *first* is the proposition, stated with varying amounts of qualification, that the "ECONOMIC MAN,"—*i.e.* the human being that political economy assumes to be normal—always prefers a greater apparent gain to a less, and prefers to attain any desired result with the least possible apparent loss or labour. The *second* is the proposition that the best possible result will be attained, so far at least as the production and distribution of wealth are concerned, if the individual is left free to regulate his own activities for the supply of his own wants, within the limits necessary to secure a like freedom to all other individuals. It is obvious that the second proposition does not follow from the first, since the economic individual may be deceived by appearances, or his interests may clash with the interests of the community. It is obvious too that they belong to entirely different departments of inquiry—the first gives information as to what happens, without pronouncing whether it is good or bad; the second judges that what happens or would happen under certain conditions is the best thing that could happen. Accordingly the first is important in explaining scientifically the facts of economic experience, but has nothing to do with economic ideals or rules of governmental action in economic matters; while the second leads immediately to a fundamental maxim of policy.

Let us for the present confine our attention to the science. Here the primary issue of importance is not whether the method of economic science is purely inductive or purely deductive; since the prevision characteristic of science necessarily involves some deduction, while the artificially simplified type of human action and social relations, with which deductive reasoning starts, is necessarily formed from observation and induction. The question is rather whether useful results are to be obtained by simple deduction from propositions—like the first of the two above given—generalised without laborious or systematic induction from familiar facts of ordinary experience. This is what the deductive economists contend; and perhaps we may say that the contention would never have been disputed if it had been limited to a certain class of questions, and not apparently put forward as a compendious account of the whole method of economic science. As so put forward, it is contradicted by the continual practice, and sometimes by the express

admissions, of the most deductive economists. It will always be found that the conclusions deductively obtained from premises of the kind above indicated are either (1) of a very general kind, chiefly valuable in a preliminary survey of economic activities; or (2) so far as they are more particular are merely abstract and hypothetical, requiring further knowledge only obtainable by induction before they can be effectively applied to the explanation of concrete facts.

To show this, it may be convenient to quote the "very few general propositions" which Senior, who is perhaps the clearest example in England of the extreme deductive view, regards as "*the* premises" of the political economist. They are these:

1. That every man desires to obtain additional wealth with as little sacrifice as possible.
2. That the population of the world is limited only by moral or physical evil, or by fear of a deficiency of those articles of wealth which the habits of the individuals of each class of its inhabitants lead them to require.
3. That the powers of labour, and of the other instruments which produce wealth, may be indefinitely increased by using their products as a means of further production.
4. That, agricultural skill remaining the same, additional labour employed on the land within a given district produces in general a less proportionate return; or, in other words, that though, with every increase of the labour bestowed, the aggregate return is increased, the increase in the return is not proportional to the increase of the labour.

Of these propositions, the second at any rate can hardly be maintained to be one "scarcely requiring proof or even formal statement"; since Senior himself in justifying it has to refer to the systematic observations by which it has been "ascertained that for considerable periods, and in extensive districts under temperate climates, the human race has doubled within twenty-five years." And only if the limits of increase are left quite vague can the third and fourth propositions be said to represent "familiar facts" included "within the previous knowledge of almost every man." Also the list is by no means exhaustive; it would not be possible to establish the most elementary minimum of conclusions that could be called a body of economic doctrine from these four propositions without several other assumptions:—*e.g.*, as to the law of property, contract and inheritance, as to the gradual satiation of the desire for any particular commodity as its supply increases, and as to the knowledge possessed by buyers and sellers in any exchange of the offers of other buyers and sellers of similar commodities. Still, speaking broadly, and omitting minor corrections, it may be granted that from a group of assumptions similar in kind to Senior's, and representing like them facts of common experience, a general or typical account of the process of production and the determination of the shares of different classes of producers in a modern industrial community may be deductively worked out. Again it may be admitted that with the same general premises a number of hypothetical problems may be solved as to the economic application of capital, or the determination of prices, wages, interest, rent, on the assumption of a definite set of particular conditions, varying from case to case. And finally it cannot reasonably be denied that both kinds of deduction, those that are general and typical and those that are particular, precise, and hypothetical, are useful as a means of training the intellect for dealing with the complex detail of the questions presented by concrete economic facts. But when we turn to any of these concrete problems—when we try to explain, *e.g.* the changes in prices, general and particular, during the last twenty years, or the fall in the rate of interest, or the differences in the wages in the same employment in different parts of England, or the differences of wages or profits in different employments—it is at once evident that such deductions are not sufficient, and that further data are needed, only obtainable by systematic observation and induction. Indeed the least reflection on any of Senior's four propositions will at once show the need of such further data. Let us take the first, "That every man desires to obtain additional wealth with as little sacrifice as possible." We can infer from this that, *other things being equal*, our "economic man" will prefer a greater gain to a less, in any sale of his services or of material commodities owned by him. But till we know what he regards as "sacrifices" and how he quantitatively compares different kinds of sacrifice with each other and with the prospect of additional wealth, we cannot get much further; and Senior himself dwells on the "diversity" that "exists in the amount and the kind of the sacrifice which different individuals will encounter in the pursuit of wealth." . . . "These differences," he goes on to say, "form some of the principal distinctions in individual and national character." But if so, we require to learn from observation and induction how different nations, or different classes of men in the same nation, estimate different kinds of sacrifice, before we can explain (*e.g.*) how wages and profits vary in different employments—"with the care and hardship, the cleanliness and dirtiness, the honourableness and dishonourableness of the employment," as Adam Smith expresses it. And a little reflection will show that in this consideration of "sacrifice" we must include all the varied motives, higher and lower, that are actually found to conflict

with the desire of pecuniary gain—patriotism, *esprit de corps*, the unconscious influence of habit, conscious regard for custom or class prejudice, the love of independence, the love of country life, the taste for town amusements, regard for health, philanthropy, and many more. Even the "aversion to labour" which some economists have paralleled to the "desire of wealth," cannot be treated as a uniform force, operative equally in all human beings at all times; nor, indeed, as Senior himself admits, can the desire of wealth itself be so treated. Our estimates of the force of all these motives, if they are to have any scientific value, must be formed on the basis of the most careful observation and systematic induction. The same is true of the conditions of knowledge—which Senior, as we saw, does not expressly notice. For instance, granting that in a perfectly organised market, in which the rates of all exchanges may be easily ascertained, the price of similar commodities will be approximately the same at the same time, allowing for cost of conveyance; it remains true that we can only learn by observation and induction, how far the conditions of mutual knowledge, in the case of the buyers and sellers of any particular commodity, actually approximates to those of a perfectly organised market.

And on many other points of fundamental importance,—such as the standard of comfort of different classes and its degree of stability, the conditions under which increased remuneration tends to increase the efficiency of labour, the extent to which population is limited by prudence or by insanitary conditions, the influence of scarcity, whether of materials or skilled labour, on the cost of production, the degree in which monopoly, whether due to combination or otherwise, limits the effects of open competition —on all these points deductions from familiar facts of ordinary knowledge can obviously give but very imperfect guidance towards the solution of real problems.

Almost everywhere, in short, in dealing with particular concrete questions of political economy, systematic induction is needed for the exactest possible determination of data, as well as for the verification of conclusions.

In declaring that the method of political economy, regarded as a concrete science, is necessarily to a great extent inductive, we also declare that it is necessarily historical, in a wide sense of the term; the facts of which it seeks to ascertain the empirical laws, in order to penetrate their causal connexions, are facts that belong to the history of human societies. The question can only be how far the history studied is recent or remote. Here, *prima facie*, we should distinguish provinces rather than methods of inquiry. There can be no doubt that the whole history of human society presents economic phenomena, the investigation of which, with a view to the ascertainment of their causes and effects, is a legitimate subject of scientific curiosity; the economic historian, so far as he is scientific, is obviously studying a branch of economic science. The only points on which controversy can arise are (1) how far the knowledge of recent economic history, or the methods useful in obtaining such knowledge, are necessary or useful for the study of remote economic history; and (2) conversely, how far the study of remote economic history tends to throw light on the problems of the present and the recent past.

On the former question an attractive *modus vivendi* between the extreme historical school and the deductive economists is proposed in BAGEHOT'S (posthumously published) *Economic Studies* (1880). According to this brilliant and penetrating writer "English political economy—the abstract science outlined by Adam Smith and constructed by Ricardo"—is "only applicable to a limited and peculiar world"; it may be defined as "the science of business," such as business is in societies of "grown-up competitive" production and trade; a "theory of commerce, as commerce tends to be more and more when capital increases and commerce grows." It certainly seems clear that elaborate deductive reasonings, based on the easy transferability of labour and capital from place to place and from employment to employment, are primarily applicable only to such advanced societies as Bagehot has in view; and are only useful—if at all—as a preliminary intellectual exercise to the economic historian who is concerned with less advanced communities. But this hardly justifies us in adopting the sharp distinction proposed by Bagehot between an "economic" and a "pre-economic" era; or at any rate a thoroughly "pre-economic" society may with almost equal justice be called "prehistoric." Any society that has a "history," in the ordinary sense, has arrived at the stage of development at which the analysis that economic science offers of the fundamental notions of utility, value, wealth, capital, money, of the varyingly remunerative employment of man's labour on his physical environment, and of the general laws determining competitive exchanges, must be at any rate partially applicable to it.

However, it belongs rather to the historian than the economist, according to the ordinarily recognised division of intellectual labour, to decide how far this general analysis, or any abstract reasoning based on it, is useful for his inquiries. But it may be worth while to point out to the more aggressive "historicists" that the more the historian establishes the independence of his own study,—by bringing into clear view the great differences between the economic conditions with which we are familiar and those of earlier ages—the more, *prima facie*, he tends

to establish the corresponding independence of the economic science which, pursued with a view to practice, is primarily concerned to understand the present. The more effectively, *e.g.*, he proves that modern economic analysis, and deductions based on the assumption of free competition and mobility of labour, are inapplicable to the study of mediæval history, the more improbable he makes it that the study of mediæval history has any important light to throw on the economic problems of modern communities in the most advanced stage of development.

Taking now the point of view of the economist whose primary task is to understand the phenomena of his own age, we may perhaps reduce the area of controversy by pointing out that the question, how far knowledge of the past is important for a scientific grasp of the present, will naturally receive a different answer in relation to different inquiries. In the first place, it may be noted that some economic propositions—usually of a general and elementary kind—while true in all stages of economic development, still find their most impressive verifications in stages antecedent to our own. For instance, the effect on price of a deficiency in the supply of a necessary of life, which modern cosmopolitan commerce tends to confine within narrow limits, is most strikingly manifested by the dearths of the middle ages. So again, the great epidemics of the same period, especially the so-called Black Death, similarly illustrate the power of a deficiency in the supply of labour to raise its value; and the latter example is all the more interesting because of the barriers of law and custom through which competition had to force its way. Even in dealing with modern questions of a more special kind, the most impressive evidence may often be obtained by a retrospect considerably extended, though not usually so far as in the cases just mentioned. Thus it may be hoped that no modern state may again give such an object lesson in the dangers of an inconvertible paper currency as both France and North America provided in the last quarter of the 18th century; and it may be hoped also that the English student will always have to turn to the first quarter of the 19th for a full exhibition, in his own history, of the evils of an unguarded legal right to poor-relief.

The instances above given are all useful to the student of the economics of advanced communities. But human societies are actually coexisting in different stages of economic development; and concrete economic science, even if pursued with practical ends, cannot exclude from its view the economic phenomena of the less advanced; and for these, instructive analogies are still more likely to be obtained from the past history of societies now in the latest stage. Thus competent judges hold that it might have prevented serious mistakes in our government of India, if the governing statesmen had had before their minds the historical development of land-tenure, as we now conceive it to have taken place in European countries.

So far we have considered the relation of the science of political economy to economic history regarded as a special branch of the whole historical study of human society,—a branch which, in the division of intellectual labour that the progress of knowledge renders increasingly necessary, has, in the last generation, attained a degree of practical independence resembling that of (*e.g.*) ecclesiastical history. But some of those who, throughout this century, have from time to time announced the proximate triumph of history over the old-fashioned political economy, have rather had in view the general study of human society as a whole, treated historically, as the study of a process of development. It is held that a scientific knowledge of the fundamental laws of this development will enable us to predict in outline the future history of society; and that such a general forecast must be more reliable, even as regards future economic conditions, than any predictions founded on a study of economic phenomena alone. There is much to be said for this contention, on the supposition that adequate scientific knowledge of social development has been attained. But in the present condition of the general science of society, the controversy between sociologists and economists is rather like certain disputes between European nations for the possession of African territory; since it does not seem to relate to any region effectively occupied and cultivated by either science, but to a far-reaching "hinterland" which it is hoped to occupy and cultivate hereafter.

In considering the relation of political economy to history we view it as a concrete science, concerned with the explanation of actual economic facts; when we turn to the question how far its method is properly mathematical, our attention is chiefly directed to the abstract deductive reasonings employed in such explanations. This question was brought into special prominence[1] for English students of the science by the emphatic affirmation of JEVONS, in his highly original and important *Theory of Political Economy* (1871), that "economics, if it is to be a science at all, must be a mathematical science." In a certain sense the affirmation is incontrovertible, since a main aim of economic

[1] The earliest systematic application by an Englishman of mathematic symbols to political economy would seem to be WHEWELL'S mathematical exposition of some doctrines of political economy in the *Cambridge Philosophical Transactions*, vol. iii. pp. 191-230.

science is to determine the relations of varying quantities—*e.g.* to ascertain how the increase of the quantity of capital in a country affects the rent of land and the wages of labour, how changes in the quantity of a commodity demanded at a given price affect its actual price, etc. The only disputable point is how far it is necessary or expedient to represent these quantitative relations by mathematical symbols or diagrams. The answer must obviously vary to a great extent with the complexity of the reasoning to be represented. Some quantitative deductions are so simple that it would be pedantic to express them otherwise than in ordinary English; some are so elaborate that it would be a *tour de force* to follow them without the aid of the technical language of mathematicians. Between the two comes an intermediate class of reasonings for which the use of mathematical symbols or diagrams is certainly not indispensable, and, while most convenient for persons who have had a mathematical training, is troublesome to those who have not been so trained. Those economists who, while giving an important place to the deductive method, decline to adopt a formally mathematical treatment of economic problems, would seem to be of opinion that the deductions really useful, in the present state of our empirical knowledge, fall within this intermediate class in respect of elaborateness and complexity.

What has been said of the method of economic science will, to a great extent, apply equally to the art of political economy; since the reasonings of art are substantially the same as the reasonings of science, so far as the selection of means for the attainment of the ends of art are concerned; they only differ in arrangement and form. The case is different when we attempt to determine the ends at which political economy, regarded as an art, does or ought to aim. On this point, however, there has not been much express discussion, among English economists at least, owing to their full—and even too sweeping—recognition of the subordination of the art of political economy to the wider art of government of which it is a branch. We may trace, however, in the history of economic ideas, a gradual important change in the general conception of the ends which government ought to have in view, in legislation or other interference primarily designed to produce effects on the wealth of the community. The oldest view of political economy conceived it mainly as a part of the art of public finance; its object was to make the people as rich as possible, in order that the funds required by government might be attained as amply and as easily as possible. And these two objects—the provision of revenue or subsistence for the people, and the provision of revenue for government—are retained, as we have seen, in Adam Smith's definition of the study; only by this time the first object has come to be conceived as independent of, and prior to, the second. In Adam Smith's view, of course, the first object would, in the main, be best attained by the "obvious and simple system of natural liberty"; and we have noticed how the triumph of this view turned the minds of economists from the point of view of art to that of science, and led them to regard the investigation of the natural process of social production and distribution as their main business. Still, in defining the object of political economy, the improvement of this process is stated as a practical end; only, for half a century after Adam Smith, it is usually the improvement of production rather than distribution that is so regarded. This is strikingly manifested, *e.g.* by J. R. M'Culloch in his statement of the practical aims of political economy. "Its object," he says, "is to point out the means by which the industry of man may be rendered most productive of wealth, to ascertain the circumstances most favourable to its accumulation, *the proportions in which it is divided*, and the mode in which it may be most advantageously consumed." Here one would almost say that the natural structure of the sentence is deliberately broken, in order to exclude the idea of seeking the improvement of distribution. But even before M'Culloch wrote this the attention of thoughtful men had been strongly drawn to the shortcomings of the "system of natural liberty," regarded from the point of view of distribution. In Senior's *Introductory Lecture to the University of Oxford* in 1826, we note an important change of tone. He even goes the length of saying that "diffusion of wealth," such that "all the necessaries and some of the conveniences of life may be secured" to the labouring class, "*alone entitles a people to be called rich.*" Then in J. S. Mill's treatise, written about twenty years later, the interest in the improvement of distribution had become so strong as to give the predominant tone to the book; and the most radical proposals of economic change, with a view to the more satisfactory diffusion of wealth, were discussed with sympathy and partial agreement. Finally, in the latter half of the century—largely through the influence of Mill's remarkably persuasive work—the original predominance of production over distribution, in the current view of the art of political economy, has been almost inverted, and the aim of improving distribution has become continually more prominent in the minds of most of those who study political economy with a practical object. H. S.

III. Political Economy and Ethics. The growing importance of distribution as a practical problem has led to an increasing mutual interpenetration of economic and ethical ideas, which, in the development of economic doctrine during the last century and a half,

has taken various forms. It is an ethical postulate that the distribution of wealth, in a well-ordered state, should aim at realising political justice; hence arises a need of showing that the ideal of distribution which political economy —regarded as a branch of the art of government—puts forward, is in harmony with justice. This task was not expressly undertaken by Adam Smith or his leading English successors. But it had been undertaken by the most philosophical writer among the PHYSIOCRATS (*q.v.*) namely, by LE MERCIER DE LA RIVIERE, in his *Ordre naturel et essentiel des sociétés politiques.* Political justice, he argues, lies in the recognition, application, and enforcement, by sovereign and magistrates, of the simple natural laws which the Creator has established for the ordering of human society: that is—so far as the distribution of wealth is concerned—in securing to every man personal liberty, and the unfettered control and use, including alienation, of the material things which his labour adapts to his needs. And, from the age of the physiocrats to the present day, the impartial maintenance and enforcement of this "obvious and simple system of natural liberty"[1] has been defended by a long line of individualistic thinkers, as constituting the essence of distributive justice. In the popular conception of this ideal, the notions of "liberty" and "property" are usually kept distinct: but the system attains completer unity if in accordance with the contention of philosophical individualists, the rights of property are regarded as a simple application of the principle of liberty, and all the natural rights of men summed up in the single right to equal freedom.

As an interpretation, however, of the popular conception of ideal justice, the bare notion of Freedom was palpably inadequate: it was necessary to show further that the distribution of wealth resulting from complete industrial liberty was in accordance with Desert, and tended to give each individual engaged in industry and trade the just or "fair" remuneration for his services. It is here that the progress of economic knowledge has most clearly influenced common morality; and the influence has extended beyond the sphere of governmental action, to private morality in matters of distribution and exchange. For "fair" wages and prices in the prevalent morality of preceding ages were vaguely understood to be wages and prices corresponding to the "intrinsic worth" of the respective services and commodities: but political economy, showing the ordinary estimate of "intrinsic worth" to be chiefly determined by shifting custom, exhibited the need of some other interpretation of fairness, recognising the normal operation of supply and demand on rates of exchange. So far as it has attempted to supply this need, the teaching of political economists has generally pointed to the conclusion that a "free" exchange without fraud or coercion is also a "fair" exchange. It is, however, doubtful how far this interpretation has ever satisfied the common moral consciousness, when cases are considered in which one party to the exchange is found profiting by the ignorance or distress of the other. At any rate it has been widely maintained that a strictly competitive exchange does not tend to be really "fair"—some say "cannot be really free"—when one of the parties is under pressure of urgent need; and further, that the inequality of opportunity which private property involves cannot be fully justified on the principle of maintaining equal freedom, and leads in fact to grave social injustice. To this view of justice or equity, the socialistic contention—that labour can only receive its due reward if land and other instruments of production are taken into public ownership, and education of all kinds gratuitously provided by government—has powerfully appealed; and many who are not socialists, nor ignorant of economic science, have been led by it to give some welcome to the notion that the ideally "fair" price of a productive service is a price at least rendering possible the maintenance of the producers and their families in a condition of health and industrial efficiency.

In the controversy between INDIVIDUALISM and SOCIALISM, which has been increasingly active during the last thirty years, the duty of preventing, so far as possible, undeserved poverty, has naturally become prominent. This leads us to notice the influence of political economy on the popular conception of Benevolence as a duty. Such influence has naturally varied considerably with variations in the general belief as to the beneficent effects of free competition. But we may say generally that the wider view of consequences which political economy has opened up, has tended, among educated persons, to check the old unqualified approval of so-called "charity," and has even led to a tolerably wide-spread condemnation of indiscriminate almsgiving and other kinds of philanthropic encouragement of improvidence. On the other hand it has also exposed the fallacy of the old comfortable view that the luxurious consumption of the rich is indispensable in order to provide the poor with work and wages; and, on the whole, it has rather operated in the direction of making the philanthropic redistribution of wealth more circumspect and methodical, than of counteracting the movement to extend its scope, which the growth of sympathy and intelligence in modern civilised societies tends to cause.

So far we have briefly considered the relation of ethics to political economy regarded as an art or a practical study. It should be noted, in conclusion, that economic science, in

[1] Adam Smith, *W. of N.*, bk. iv. ch. ix.

investigating the causal connections of economic phenomena, is concerned in quite a different manner with morality. It has to consider how far, and in what ways, man in civilised societies is actually influenced by ethical considerations in the application of his labour to his material environment, and in dealing with the complicated system of exchanges by which the produce of that labour is distributed. In the deductive reasonings which play an important part in economic method — a part differently defined and estimated by different schools—it is to a great extent convenient to abstract the disturbing influence of ethical motives, so far as they restrain or modify the impulses that prompt a man to make the best bargain he can for himself in any transfer of commodities. This influence may generally be neglected in a certain class of concrete problems also —as in investigating the value of money, or the foreign exchanges. But in other cases —*e.g.* in the determination of wages—motives of this kind constitute an important factor; and in the development of political economy during the present century we may trace, in the works of our leading writers, a growing recognition of their importance. H. S.

IV. POLITICAL ECONOMY, APPLICATIONS OF LOGICAL CONCEPTIONS TO. Most of the ideas and principles employed in economic investigation have been borrowed from other sciences in which their use is justified by the special characteristics of those sciences. But many of these very general conceptions have to be specially modified when applied to the explanation of industrial phenomena. We may specially consider a group of ideas represented by the terms law, normal, tendency, average, force, cause. We find even in Adam SMITH some traces of a certain confusion, more or less prevalent in the 18th century, based on the conception of nature and natural law. The confusion appeared chiefly in the method of investigating the study of human affairs. This was dominated by the presupposition that an elimination of the forms superimposed by man upon nature's handiwork would reveal a sort of residue or essence that could serve as a model for imitation and reconstruction. In this way the respective standpoints of science and of art, of positive and practical investigation, were blended in a theory which identified the hidden purposes of nature with the truest aims of man. That which was natural was taken as equivalent to that which was free from artificial interference; and this latter to that which ought to be. The LAWS OF POLITICAL ECONOMY (*q.v.*) thus tended to be alternately presented as something against which it was futile for society to contend, and again as something which it was imperative for society to promote. Political theory suggested a natural rate of wages, a natural rate of profits, as well as a natural right of property and a natural right to labour. The confusion was, however, gradually dissipated as the provinces of science and of art came to be separated. With this distinction also the double meaning of *law*, which stands either for a *uniformity* or for a *precept*, was explicitly recognised. The term law is now almost universally applied in economics in the former sense. Thus an economic law is a specific regularity traceable in actual experience of industrial phenomena; and the confusion between scientific law and ethical law no longer prevails. In this connection the term normal has replaced the older word natural, and is used as an adjective correlative of law. We now read of normal price or of the normal rate of wages, and understand by the expression *normal* something which presents a certain empirical uniformity or regularity. Emphasis is thus laid on the principle that the usual and the desirable do not necessarily coincide; and that to leave nature to herself, so far as this may be conceived as possible in human affairs, does not necessarily conduce to the greatest social well-being. But in this modern use of the term law and its correlative normal, there still remains the possibility of misunderstanding and misapplication. The term normal, as prevailingly used in deductive economics, does not after all express what is actually found to happen in every case (see DEDUCTIVE METHOD). Of course the word is relative to some particular condition of society to which it explicitly or tacitly refers. But this is not all. It would only be verified in actual experience on a certain supposition, which is never exactly realised. Briefly, the normal is a more or less fictitious average. For example, the normal price is a price round which the actual prices fluctuate, and towards which, under the influences of competition, the actual price would more nearly approach as the period is lengthened, *provided that the general economic conditions remained stable during the period.* Not only can we not identify the normal price with any actual individual price, but we cannot properly identify it with the actual *average* of individual prices, except in so far as the hypothesis of stability of conditions is empirically realised. Estimates of normal results are, therefore, chiefly valuable for purposes of deductive exposition, and require various modifications before being applied to inductive explanation or prediction. A further consideration of the utmost importance introduces additional complexity, viz. that the periods for which the term normal applies differ considerably for different questions. For example, the normal price of a consumption good (see CONSUMERS' GOODS) refers to a period during which the number and efficiency of the working population, and the influences tending to keep up the investment of capital are relatively fixed; while the oscillations of price due

to changes of fashion, to variations of weather, to incidents of discovery, etc., are supposed to compensate for one another. But in determining the rates of wages and of interest themselves, with which the normal prices of commodities are connected, owing to the various ratios in which labour and capital may contribute to the production, a different set of questions is raised. In this case, we cannot lengthen our period in order to eliminate compensatory oscillations. For the general conditions of social development lead us to infer *progressive changes* in the conditions determining the value of productive agents. In these questions definite historical investigation, aided by estimates of various political and moral forces, takes the place of deductive calculations. The deductive method often rests upon mechanical and mathematical analogies; the inductive method, which here takes its place, rests rather upon biological and evolutionary analogies (see INDUCTIVE METHOD). The term *normal* ceases to apply, so far as it indicates an average, *estimated over a period of time*. But here it should be pointed out that the term *normal* may also be used to indicate a different kind of average, viz. an average estimated over a range of simultaneous phenomena. Whenever the result of a number of differently quantified phenomena can be calculated by *addition*, then it is useful to know their average value, from which their *aggregate* resultant is immediately found. For example, the total loss to consumers that would accrue from a tax on commodities could be roughly known, if we could estimate the average loss and the number of consumers. This example illustrates the important uses that may be made of the *average*. In these problems the theoretically deduced *normal* ought to coincide with the empirically inferred *average*.

A further implication of the term *normal* will be brought out by consideration of the allied term *tendency*. This term is based on mechanical analogies. It implies a force whose effect is modified by combination with the effects of other forces. The "law of the force," therefore, represents a "tendency" which can only be discovered by constructive analysis. Most of the laws of deductive economics are expressions of such tendencies. They can be applied to the interpretation of particular facts, only on the express proviso *that other things are equal*. For example, the law of DIMINISHING RETURNS points to an increase in cost of production of agricultural produce accompanying increase of population; but this tendency may be actually frustrated by improvements in the arts of production, etc. Similarly, the LAW OF SUBSTITUTION elaborated by Prof. Marshall (*Principles of Economics*, bk. v. ch. iii.) indicates a tendency towards the most economical mode of producing commodities, which is only realised on the assumption of sufficient foresight on the part of the leaders of industry.

Finally, we may refer to the particular form in which the general idea of *cause* has to be applied in economic deductions. The view of causation which has been popularly prevalent in economic expositions, may be called the chain-view. It is supposed that a causal series may be established thus: A determines B, B determines C, C determines D, and so on. Thus controversy has arisen whether it is the COST OF PRODUCTION or the taste of the consumers that determines price (see articles on PRICE); and again, whether it is the prevailing standard of comfort or the productive efficiency of any class of labourers which determines their rate of remuneration. In such cases, supposing that a controversy turns on whether A or B is the cause of C, it is further assumed that if it is A rather than B that determines C, then it must be C that determines B. For example, if we decide that the cost of production determines price, then we go on to infer that price determines demand, and so on. Now Professor Marshall has pointed out that the various elements of an economic condition of equilibrium do not, in this way, follow one another in a single causal chain; but that they all mutually determine one another by simultaneous interaction. Thus, neither the amount demanded nor the amount supplied are in general fixed independently of the other, but the price and amount at which the commodity is sold are jointly determined by the joint conditions of supply and demand. This conception of the nature of causal interaction controls the entire exposition of the problems of DISTRIBUTION and EXCHANGE in its modern form.

[Marshall, *Principles of Economics*, bk. i. ch. vi.]

W. E. J.

V. POLITICAL ECONOMY AND PSYCHOLOGY. If political economy is the science of wealth, then it deals with efforts made by man to supply wants and satisfy desires. "Want," "effort," "desire," "satisfaction," are each and all psychic phenomena.

It would therefore appear that psychology must be to political economy—like the deity of Boethius—"path, motive, guide, original, and end."

Yet it is obvious that the political economist as such is not engaged in the establishment of the ultimate principles of psychology. He has not, for example, to investigate the nature of a concept, or determine the relation of the Will to the Reason. So far it is clearly true (cp. Keynes, *Scope and Method of Political Economy*, pp. 87, 88) that although the laws of the political economist "rest ultimately upon a psychological basis," he accepts psychological principles as his data rather than establishes them as his conclusions; unless indeed he should be compelled to make excursions into

the psychological field proper, because he does not find his premises sufficiently elaborated to his hand.

But this does not justify the reduction of the psychological factor of political economy to a level with the physical factor. Cairnes indeed (*Logical Method of Political Economy*, 2nd ed. pp. 37 and 38, quoted and apparently endorsed by Keynes, p. 85) instances the law of rent, and maintains that, in establishing this law, the economist no more undertakes to analyse the motives of self-interest which dictate the conduct of the landlord and the tenant than he undertakes to analyse the physical qualities of the soil which determine the law of decreasing returns. Now this is very true. The economist starts with both psychological and physical data, which he need not analyse, provided he has satisfied himself that they are true. But the difference is this, that whereas his *data* are partly physical and partly psychical, his *quæsita* are, in the last resort, wholly psychical. For if the law of rent is anything, it is a formulating of the principles which we may expect to regulate the *conduct* of men, secured in certain possessions and privileges, actuated by certain motives, and in the presence of certain physical facts and laws. The laws of political economy then, being ultimately laws of human conduct, are psychical and not physical; and therefore psychology enters into political economy on something more than equal terms with physical science and technology.

It therefore seems clear that, although the economist, as such, is not concerned with the ultimate analysis of his psychological data, his quæsita or conclusions are themselves of the order of psychic phenomena. But within the limits thus laid down there is still ample room for diversity of opinion. It may be contended that the economist has to receive, and test, his psychological and physical data alike, to deal with them by the universal methods of dialectic (*i.e.* inductive and deductive logic, or mathematics, if applicable), and then hand over his psychological results to the sociologist. Or it may be argued that political economy is largely, or even prevailingly, *applied psychology*, so that the economist must from first to last realise that he is dealing with psychological phenomena, and must be guided throughout by psychological considerations. In that case the relation of psychology to economics will be as close as that of mathematics to mechanics, though not in all respects analogous to it.

It is easy to see that the controversy as to the inclusion or exclusion of CONSUMPTION as a separate and acknowledged division of political economy, has a decisive bearing upon this question. The whole theoretic study of consumption can be little else than the application of the great psychological law of diminishing returns of satisfaction or relief to successive increments of commodity or service supplied to the same subject. To admit "consumption" then as a branch of political economy is to admit that applied psychology has its conspicuous place in the science. So that if we are justified in saying that the express study of "consumption" has now been definitively admitted as within the scope of political economy, we are thereby admitting psychological method, as well as psychological data and conclusions, as a part of the science; and the importance of dealing thus expressly with consumption and the psychological phenomena on which this branch of this study rests may be well shown by typical popular fallacies. For instance, there was no more common application of political economy a few decades back than the dictum that "what people want they will pay for," and that therefore all subsidising is a waste of effort, and is "against political economy." Here the datum is that if *one and the same man* wants A as much as he wants B, he will be willing to give as much for it, sooner than go without it. From this datum certain conclusions as to market values and the commercially wise direction of efforts and resources are reduced, and these in their turn are reinterpreted into the statement that if *one* of two men is unwilling to give as much for A as *the other* is willing to give for B, then the first man does not want A as much as the second wants B, and it would be a wasteful and mistaken philanthropy to supply No. 1 with A rather than No. 2 with B. Of course no economist would formulate such an absurdity, but if the economists exclude consumption from express and psychological treatment, they leave room for and almost invite such "applications."

So much then for "consumption." But EXCHANGE is so closely connected with consumption, and the laws of value are now seen to be so intimately dependent upon the psychological law of diminishing returns of satisfaction, that it must be impossible henceforth to exclude applied psychology from the problems of value and of exchange.

An excellent illustration is furnished by the problems of the currency. Of all branches of economic enquiry those that are concerned with MONEY and with FOREIGN EXCHANGES seem most nearly to approach the objectivity of natural phenomena; and what is known as the QUANTITY THEORY has been cited as a proof case of an economic law which is not psychological. But the truth is that no single step can be safely made in monetary science, unless the investigator keeps himself in conscious touch with his psychological basis during his whole investigation. We cannot, without special examination, even say that, in virtue

of the universal law of supply and demand, the more sovereigns there are the lower will be their exchange value. For in this universal law of supply and demand there is a psychological link. Why does an increased supply lower exchange value? Because an increased supply of any commodity satisfies the corresponding want more completely, and reduces the unsatisfied remaining want to a lower degree of importunity. Now in the case of money it is admitted that within wide limits the money function is exactly as well performed by x and by nx pieces, so that there is no unperformed money function and money want becoming less and less importunate for satisfaction as the number of sovereigns, but not the command of commodities in general, increases. Thus, if the law of demand and supply is regarded as objective and absolute, and the psychological link forgotten, its applications to monetary problems will have no demonstrative cogency.

We now turn to PRODUCTION and DISTRIBUTION, and here we note at once that the study of "production" must include the theory of labour, in which everything turns upon the law of the increasing irksomeness of successive increments of effort, and the decreasing psychological value of successive increments of commodity, or other result of effort; and the same law invades the study of distribution at every point, allying itself with the better-known physical law of diminishing returns to successive increments of any one factor of production, the others remaining constant.

In all the four main divisions of political economy, then, we see that the direction taken by economic study in recent years tends to a more express and generous recognition of the close connection between psychology and political economy, and the necessity of constantly keeping in touch with our psychological basis even when pursuing those branches of economic inquiry which appear to be remotest from it.

But, especially in connection with "production" and "distribution," another aspect of the question forces itself on our attention. We have hitherto enquired whether the psychological data of economics can be accepted absolutely as results and dealt with by general dialectic methods, or whether they can only be considered as principles, to be applied with constant reference to the psychological conditions of the special problem under investigation. We have now to ask further, are these psychological data, whether facts or principles, to include all the psychological considerations that actually bear upon the production, distribution, etc. of wealth, or are we artificially to simplify our psychology and deal only with the motives supposed to actuate the hypothetical "economic man"? In the latter case political economy will be a hypothetical science. In the former it will aim at positivity.

And here again it will hardly be doubted that the tendency of recent work has been in the direction of enlarging the psychological area from which the data of political economy should be drawn. This tendency is manifested in two characteristic movements in recent economic investigation, which have in their turn reacted upon it. Firstly, the field of economic study, like so many others, has been invaded by the passion for the concrete method of enquiry, whether applied to contemporary or remote conditions. Now the man who studies the history of a great strike or trade-movement in Europe or America, of the land tenure or village industries of India, of middle-class or artizan budgets in England or France, of the growth and organisation of industry in the Hanseatic cities or the republics of Italy, of the fiscal systems of commercially related peoples, and so forth, finds himself studying the conditions of the production and distribution of wealth, but in a region in which the simplified psychology of Ricardo and Senior is wholly inadequate. So conspicuously is this the case that some economists are ready to admit that no general theory or science of economics is possible, but only a natural history of wealth, production, etc., while others are seeking to reconstruct the general theory of economics on broader and more universally applicable principles. And it is here that the second movement characteristic of recent times allies itself with the historical method. It is the much-discussed mathematical method, which from this point of view is the necessary complement of the historical or concrete method. For no sooner has the mathematical student given to the acknowledged psychological data of economics the form, at once rigorous and generalised, that his method demands, than he perceives that his formulæ really embrace the general theory of the distribution of resources with a view to maximising a desired result, independently of the nature alike of the resources and the result in question. This brings the economic conduct of man under the same laws as his conduct in general, and promises to give us the wider basis of which we are in search.

Our conclusions throw a curious light on the much-debated but little-understood contention of Auguste Comte, *Phil. Pos.*, vol. iv. pp. 193 *et seq.*, that there is no specific science of wealth, with its special laws and principles, and that the attempt to deal with the wealth-getting impulses of man in isolation must be essentially barren; but that special applications of general principles of philosophy to the industrial and commercial life may be prolific and illuminating in a high degree.

P. H. W.

VI. Political Economy, Recent Developments of.

(1) Economics as concerned with Currency, p. 148; (2) Economics as based on the Element of Labour, p. 145; (3) The Gradual Appearance of the Ethical Element, p. 145; (4) Application of (*a*) *A priori*; (*b*) Historical, and the Gradual Rise of the principle of Freedom with new Aspects of State Control, p. 146.

We propose in this place to present briefly a general outline of the leading doctrines of the science as progressively evolved, with the names of the authorities specially associated with each development, so as to indicate, as it were, the skeleton of the history of the science, leaving the student to fill in subsequently for himself the details and elaborations of particular problems. Much generalisation which was considered as true at the time when it was made, and even was true within the limited aspects or conditions of the subject as then presented, has since ceased to be applicable in the wider view or more highly organised system of production and distribution of to-day. And, on the other hand, much which must be still held to be true as ultimate principles, or as the permanent conditions or tendency, is temporarily in abeyance, or is even not applicable as an expression of immediately existing practical conditions or phenomena. Certain views or formulæ which formed part of the growth of knowledge have been superseded or may be regarded as eliminated or definitely on the shelf, and in their place more comprehensive conceptions arise which invite study as the frontier lines of the science and the basis of further progress. To some extent these changes may be attributable to the fact that with the progress of time the science has assumed sometimes more and more of an ethical character; or sometimes more and more the character of an applied science, the object aimed at being, not so much the mere systematising of knowledge, as the amelioration of the social condition generally. Even in regard to the object some change of view is apparent, the avowed purpose of investigation being less consciously an increased production of wealth, and more consciously "the greatest happiness of the greatest number"[1] even though the attainment of this end should involve some sacrifice of material wealth. A more philosophical statement of the case would, however, be, that the present ethical tendency of the science was inherent in it from the first, and its recent more pronounced development a process of natural and inevitable evolution. This widening of view is illustrated by the very definitions of the science. Thus, whereas Adam Smith introduced his great work, *The Wealth of Nations*, as an inquiry into the annual labour of nations as a "fund" of national wealth, and J. B. Say took the production of wealth, and Ricardo the theory of value as the subject of inquiry, Roscher, the founder of the modern historical school of political economists, begins his survey of the science with the declaration, "Ausgangspunkt wie Zielpunkt unserer Wissenschaft ist der Mensch"—the starting-point and goal of our science is man.

(1) *Economics as concerned with Currency.*—If we go back to the economic investigations of the ancients we see a remarkable conformity in their views with the views which are again coming to the front to-day. Aristotle (*q.v.*), accepting the institution of slavery as he found it, was really more concerned with the happiness of the family life and of the State than with the production of wealth, and on this basis engaged in the investigation of exchanges or commerce, the origin of value, and the real nature of money. The institution of slavery lingered on into our own times and was then abolished rather from ethical than economic considerations, though in this, as in other cases, the ethical view proved to be the true economic view in the end. Aristotle's inquiries led him to the perception that money was the creation of law, a merely conventional arrangement for promoting distribution, and it was probably this view of money as an instrument of distribution, as well as his ethical view that wealth was subordinate to man rather than that man existed for the accumulation of wealth, which made him an authority against usury. But Aristotle appears to have clearly perceived that the utility of gold and silver as materials was a condition of their suitability for their conventional use as an equitable instrument of distribution. In other words he seems to have perceived the importance of natural stability of value in relation to their conventional function. Philosophically expressed the former may be spoken of as the fiduciary system, and it rests, as has been well pointed out, on the doctrine of chances. The latter may be spoken of as the hard or labour money system, and it rests on the principle that money, like the things it measures, must itself be the product of labour, and on the belief that the unrestricted mobility of capital and labour, constantly searching for the highest reward, is practically competent to maintain an unvarying relation or balance between all the products of labour, including money itself. The philosophical interest in the controversy lies in the fact that it *is* a question of the maximum production and equitable distribution of the wealth produced by labour, consistently with the free operation of scientific principles and individualism, a problem which certainly seems to imply for its solution freedom of money and stability of value in exchange. The two extremes in the history of the science being a definition of money and a world-wide monetary controversy, it is not

[1] Though earlier English writers had been aware of this expression, its currency in these islands is due to the advocacy of Bentham (*q.v.*).

surprising to find that during a very large part of the intervening period economic investigation and discovery were mainly related to, or sprang out of, currency problems. The exchange of products was a condition of organised society, and currency was a necessary instrument of economic exchange. With the decline of the Roman Empire, itself largely a consequence of the fall of prices due to the failure under the slavery system—an uneconomic system of production—of a continuous and adequate supply of the precious metals as the instruments of exchange, the then existing stock almost disappeared. This fact, which is the keynote to the history of economic science up to the time of the PHYSIOCRATS, may be best studied in the writings of Mommsen, who has written a special treatise on the subject, of which a French translation (by the Duc de Blacis), *Histoire de la Monnaie Romaine*, is perhaps best known. It was the scarcity of the precious metals as the accepted instrument of exchange during the middle ages that led to the debasements of the coinages, the alterations of coinage ratios in different countries, the laws against usury, and the establishment of the so-called MERCANTILE SYSTEM. The ethical aspect of economics meanwhile continued a force (as evidenced by the writings of AQUINAS, *q.v.*) and strengthened or checked these developments in various ways. The treatises of Nicholas ORESME and COPERNICUS on the subject of money and coinage (reprinted in Paris under the editorship of WOLOWSKI in 1864) may be consulted as contemporary authorities on the difficulties of the period, and as examples of the progress of economic thought stimulated by the phenomena. Under such circumstances the mercantile system or the BALANCE OF TRADE theory was not without justification, indeed the same theory is practically recognised even by free traders in regard to the finances of India to-day. Amongst English treatises of the 17th and the early part of the 18th centuries on the subject, MUN'S *England's Treasure by Foreign Trade*, 1664, and KING'S *British Merchant or Commerce Preserved*, may be usefully consulted. Economic doctrines tend to crystallise into meanings which their authors would not recognise, thus COBDEN'S free trade doctrine has lately been generally represented as a doctrine of low prices, though Cobden expressly repudiated this interpretation; and the desire for an adequate reserve of the metals which constituted the most easily exchangeable form of wealth, crystallised into an assumption that money alone was wealth. The impoverishment of France which resulted from the wars of Louis XIV., and the problems which were thus presented, led to the revolt of the physiocrats, led by QUESNAY and TURGOT, against this doctrine, and to what may be spoken of as the rediscovery of the fact that real wealth consists of all exchangeable products, and that value is an expression of exchangeability of any kind. The necessary deduction was the doctrine of FREE TRADE. But really the same general conclusion had been arrived at from the consideration of the nature and functions of money alone. In JOHN LOCKE'S *Considerations of the Consequences of the Lowering of Interest and Raising the Value of Money*, written in 1691 in opposition to LOWNDES' anti-usury and coinage proposals, we have not only a recognition of the special or conventional attributes of money as distinct from other commodities, and a clear perception of the QUANTITY THEORY OF MONEY, but a general annunciation of the principle of free trade or free exchange, and the doctrine of LAISSEZ FAIRE. With Locke, however, as with Somers, Montague (see HALIFAX, Earl of), and NEWTON, the consideration of general economics was subsidiary to that of money; or to speak perhaps more accurately, general economics were summed up in the question of the reform of the currency which necessarily involved all considerations of prices and exchange. An American writer, Mr. Dana HORTON, who spent some time in England investigating the records of this country, has given in his *Silver Pound*, a valuable and scholarly exposition of the problem presented to Locke, Somers, Montague, and Newton, and their practical conclusions. It is a fact that the reconsideration of the real nature of money, and the recommendation of conditions necessary for the free international movement of money, preceded and were closely allied with the development of the free trade doctrine. The most conspicuous expounders of the relation between monetary conditions and free trade in the present century have been Emile de LAVELEYE and Sir Louis MALLET, (see particularly the latter's posthumous volume *Free Exchange*). In the middle ages the monetary side of economics was forced on attention from the administrative point of view, as a question of government revenue and the provision of war funds. With the greater abundance of the precious metals, which followed the discovery of America, came a revival of industrial and commercial energy; an increase of production, exchange, and, consequently, wealth under the stimulus of rising prices; and a growth of self-assertiveness and power amongst the producing and trading classes. This caused what may be spoken of as a parallel development of the commodity side of economics. While the economic progress, which resulted from the great increase of the money supply from the mines of Potosi, developed a clearer perception of the disadvantages of monetary stringency, it also led to a recognition of money as a means to an end, rather than as an end in itself. The advent and influence of John LAW, with his

paper money and banking schemes, was made possible in this way. From the philosophical point of view what Law aimed at was the monetisation of landed property, and he sought to give such property the condition of easy transportableness, or circulation, recognised by Aristotle in gold and silver, by means of paper representatives. Law's disastrous experiments undoubtedly gave an impetus to banking as a means of promoting exchanges without the aid of the precious metals, or perhaps, to speak more accurately, as a means of supplementing the monetary use of gold and silver by means of notes or other credit instruments ultimately redeemable in gold or silver, and therefore, held for the time being as equivalent to gold or silver (see ASSIGNAT; REVOLUTION, FRENCH, ECONOMIC ASPECTS OF). Law himself, it should be noted, was a believer in the mercantile system, but his career powerfully contributed to the evolution of the physiocratic doctrine. As authorities on this stage, in the development of the science, Law's own writings, and Courtois's *Histoire des Banques en France*, may be recommended.

(2) *Economics as based on the Element of Labour.*—Adam Smith's treatment of labour and its employment, as constituting the real wealth-fund of nations, was a natural sequence of the revolt from the crystallised dogma of the mercantilists, and to proceed to regard labour as in itself the real standard of value, was a not unnatural step. There is some reason to doubt whether Smith's views on this point have been quite adequately expounded or even understood; assuming a theoretical perfect mobility of labour, and the non-existence of monopolies, and estimating different qualities or kinds of labour as different quantities of labour, there is a point of view from which Smith's dictum might be philosophically justified. Certainly the cost of production theory seems closely allied to Smith's views on this point. It was of course apparent to Smith that land is a factor in the production of wealth, inasmuch as he defines real wealth as "the annual produce of the land and labour of the society." The definition, it may be remarked, is scarcely comprehensive enough at the present day, as it is clear that the wealth of a nation may consist largely of the accumulations of past years, or of revenue derived from investments in other countries, as well as of its own new annual production. We are chiefly indebted to Smith for laying down the ground-work of the modern science, and explaining the general conditions which govern production, including the division of labour, and for the exposure of the fallacies of the mercantile system, and thus more clearly bringing into view the principles of economic exchange or distribution.

(3) *The Gradual Appearance of the Ethical Element.*—After Smith's mapping out of the science, its ethical aspect could not fail to assert itself. The conditions of the creation of national wealth were defined; meanwhile poverty and pauperism continued to exist, and that fact brought the question of distribution permanently to the front. In the year following (1777) the publication of the *Wealth of Nations*, Dr. James Anderson, in a tract entitled *An Inquiry into the Nature of the Corn Laws*, stated the theory of rent generally known as Ricardo's (see ANDERSON), rent being described as in effect a premium for the cultivation of the richer soils, which reduced the profits of the cultivators to an equality with those of the cultivators of the poorer soils. Ricardo's definition was that rent arises out of the original and indestructible powers of the soil, begins when land of different qualities are cultivated, and increases with the increase in the inequality of the land successively brought under cultivation. MALTHUS and the anonymous author (Sir Edward WEST) of an essay, *On the Application of Capital to Land*, preceded Ricardo, in 1815, in the re-discovery of Anderson's doctrine, and in the mind of the former it necessarily led to the discovery of the law of diminishing returns, and of the doctrine that population tends to increase faster than subsistence. These laws and the counteracting forces operating against them have been discussed by many economists, amongst others, M'CULLOCH, Dr. T. CHALMERS, CAREY, J. S. MILL, Sidgwick, and Marshall (see DIMINISHING RETURNS). CAIRNES has conclusively established the former doctrine as a logical principle by challenging opponents to experiment, and by pointing out that the experiment is actually performed by every practical farmer when he brings inferior soil into cultivation, rather than force unprofitably soils of better quality. Francis A. WALKER'S examination, in *The Wages Question*, of the capacity of labour for gradual degradation, and the circumstances which interfere with the mobility of labour, fully demonstrates the "power" and the "tendency" of population to increase faster than subsistence. Counteracting forces, such as improvements in the methods of production, or increased efficiency, may control such tendencies; and it is the work of economists to elucidate and promote the application of such forces. Meanwhile the recognition of the tendencies or laws really reduced the question of the distribution of wealth to a question of wages. Ricardo held that with the constant necessity of resorting to inferior soils, prices and wages tended to rise and profits to fall. Here again we see the influence of the cost of production theory. We must remember that, as M'Culloch has pointed out (Introduction to *The Works of David Ricardo*, edited by M'Culloch), Ricardo arrived at the establish-

ment of general principles, and paid little attention to their practical application. As regards nominal wages, the doctrine is in a sense true; but the law of rent, as stated by Anderson, nevertheless implies the reduction of the real wages of agricultural labourers to the mere value of the produce obtainable with the maximum of effort from the poorest land, or the land that pays no rent. If the real wages of agricultural labourers have risen, it has not been in consequence of increasing scarcity of production in relation to demand or increased cost of production, but in consequence of the increased efficiency of labour as a result of the progress of the natural sciences and invention, and their application to the land.

(4) *Application of*—(*a*) *A priori.*—The attention given to the discovery of general or "natural" laws or tendencies, led to the establishment of what is now recognised as the *a priori* school of economists, while the lamentable conclusions to which some of these laws seemed to lead resulted in a revolt against submission to them. The "DOCTRINAIRE" school, influenced by its physiocratic origin, and, therefore, predisposed to attribute all wealth to the operation of uncontrolled natural laws and natural instincts, a view expressed in the very name of the physiocrats, adopted the principle of *laissez-faire, laissez-passer*, a phrase first used as the expression of an economic doctrine by GOURNAY, one of the earliest physiocrats and a friend of Turgot's. The fact that some of the practical applications of this doctrine, free trade, for instance, were manifestly benevolent; and the long struggle against private monopoly resulting from State control in the form of the CORN LAWS, developed the extreme and uncompromising tenet, characteristic of what has been called the MANCHESTER SCHOOL—that State interference with industry and trade could in no case be beneficial, and that, if left alone, all economic evils would cure themselves. The opponents of this doctrine held to the principle of State control or national policy, which, though to some extent a revival of the principle of the mercantile system, was not absolutely identical with it. Its application from the landowning and capitalist point of view takes the form of so-called protection to native industry in the form of import duties; while from the proletariat point of view it has developed into the doctrines of COLLECTIVISM or SOCIALISM, including the State ownership of the land and of all the instruments of production and distribution. Between these opposing schools, both eminently doctrinaire in their way, has arisen a third school known as the HISTORICAL SCHOOL, which to some extent combines the teachings of both the other schools. This school, on the one hand, believes in natural law, and, on the other, in the employment or control of natural law, in accordance with the teachings of experience, but without any needless waste of natural energy. It is a little remarkable that, whereas in the earlier part of the century, Manchester, under the influences of the anti-corn-law movement, was the centre of the *laissez-faire* doctrine; and London, under the influence of the landowners, was the stronghold of the principle of State control; London to-day is the centre of *laissez-faire* principles, while Manchester is the centre where the teachings of the historical school have been most appreciated and applied. This result is largely a consequence of the economic advantage which has accrued to Lancashire, in the form of increased efficiency of production, as a result of the factory and mining acts (see FACTORY ACTS) and the legalisation of TRADES UNIONS.

In resisting attack the extreme *laissez-faire* school found it necessary to propound new doctrines, or to emphasise old doctrines which no longer accurately expressed the actual facts of the time. In other words, the *laissez-faire* school having served a useful purpose, tended, like previous schools, to crystallise and to become more and more dogmatic. Chief amongst the newly evolved doctrines was that of the wages fund, perhaps most intelligently expounded by Nassau William SENIOR. This doctrine, like many others which have now been practically abandoned, arose out of conditions under which it was apparently true, and in so far as it expressed a relation between wages and the productive efficiency of labour was not without value. Its fallacies under present conditions have been fully exposed in Walker's *Wages Question*, in which it is demonstrated that wages are now, at least partly, paid out of the product of present industry, and that new production rather than pre-existing capital, or that portion of capital applied to production, furnishes the true measure of wages. Another doctrine which has failed to stand in its entirety the test of modern research and developments is that of the dependence of exchangeable value on cost of production. To some extent this doctrine was based on Smith's conception of labour as a standard of value, and Ricardo's belief that prices and wages must rise with the diminution of production from poor land which required for its cultivation the same as, or even a larger quantity of labour than, rich land required. Modern mechanical developments, the approximation to annihilation of distance by the establishment of telegraphic, steamship, and railway communication, the consequent indefinite extension of cultivation to virgin lands, the instantaneousness of competition from all sources of supply, the rise of the "futures" system of anticipating production, and the vast improvements in productive power have all

tended to make the older doctrinaire authorities less authoritative as exponents of actual conditions. Thus, in recent times, production has, beyond all question, tended to increase faster than population, or, at any rate, the power of production has done so. The laws of diminishing returns and cost of production of the dearest margin have not operated to raise either prices or wages; it is indeed notorious that both have been fixed rather by the cheapest than the dearest portion of the supplies, even when the dearest portion has been required for consumption. The effect of the reduced monetary cost of Argentine wheat in lowering the price of wheat throughout the world in spite of statistical considerations is an illustration. With the recently developed solidarity of the world's markets, prices in many instances, and consequently profits and wages, now depend rather on variations in the monetary standards and relative indebtedness of different countries than on differences in the total actual economic cost of production. Variations in the relative values of the standards, in themselves largely a consequence of differences in the permanent indebtedness of borrowing, as distinct from lending, countries have made many of the old formulæ obsolete in a practical sense, though possibly true in an ultimate philosophical sense. Two doctrines which at present maintain a practical influence are the QUANTITY THEORY OF MONEY in relation to prices, and the doctrine of PROTECTION. The former doctrine was fully stated by J. S. MILL, and is maintained by Professor Foxwell and Professor Nicholson amongst more recent teachers of the science. J. S. Mill also reaffirmed the protectionist doctrine as provisionally applicable to new countries whose industry is practically limited to agriculture, as a means of beneficially introducing greater variety of production. The theory of protection philosophically considered has been most elaborately worked out in connection with the development of the United States. Its chief exponents have been Alexander HAMILTON, Friedrich LIST, Henry C. CAREY, and Simon N. Patten. An excellent account of American experience and thought on the matter has been compiled by Professor Ugo Rabbeno of the university of Modena, and an English translation has been published with the title *American Commercial Policy*. The doctrines of the collectivist or socialist branch of the State control school have been enunciated chiefly by Karl MARX in *Das Kapital;* see also Emile de LAVELEYE'S *Le Socialisme Contemporain*, and Paul Leroy-Beaulieu's *Le Collectivisme*.

(*b*) *Historical; and the gradual rise of the principle of Freedom with new Aspects of State Control.*—The founder of the historical school, which at the present time is practically in the ascendant, was Wilhelm Roscher, who inaugurated the new departure by a treatise on the historical method of economic inquiry in 1843. Probably the most exhaustive summary of the kind, remarkable for its completeness as a treasury of economic facts and deductions and perfection of arrangement, are the five volumes of ROSCHER'S *System der Volkswirthschaft*, the production of which extended over about fifty years of the author's life. The first volume was published in 1854, and the fifth in 1894. Roscher's great work was designed as "a manual and text-book for business men and students," and the volumes deal successively with (1) The General Principles of Economics; (2) Agriculture and its Allied Industries; (3) Trade, Monetary Systems, the Exchanges, and Manufacturing Industry; (4) Finance; and (5), published posthumously, Poor-Relief and Poor-Law Policy. Roscher's method is analogous to that of the unbiassed experimentalist in physical science; in short Roscher was in economic science what Michael Faraday was in physical science. From his point of view the science is not limited to the production of wealth, but embraces the whole social, family, and religious life of man; speech, art, science, laws, history, and even physiology are all factors to be taken into account in the elucidation of economic problems. Most of the mistakes which were made by the older economists were due to the exaggerated importance attached to the desire to buy in the cheapest market and sell in the dearest—to the neglect of equally powerful influences in the nature of man and hindrances to the free play of this principle in the relative weakness of the workman—which procured for political economy the title of the science of selfishness. Amongst the most successful followers of Roscher's method may be mentioned Emile de Laveleye, Cliffe LESLIE, Wolowski, Cunningham, and Francis A. Walker. The latter's restatement of the wages problem has probably done more to advance economics as a practical study for application in the amelioration of society, and for its vindication as a science than any specific investigation of a particular problem in economics since the time of Adam Smith. Another great result of the application of the HISTORICAL METHOD is the investigation of the limits within which the State may act to promote economic production and to control and counteract what may be spoken of as the occasionally uneconomic tendencies of unrestricted competition. Practical results of these investigations have been sanitary legislation, the various factory and mining acts for the special protection of women and children and for the general protection of the life and limbs of workers; the free education acts and municipal and state enterprises such as the gas and water undertakings of Manchester and the state railways of India; W. Stanley JEVONS'S *The State in Relation to Labour*, Lord Farrer's *The*

State in Relation to Trade, and Sir Frederick Pollock's *Land Laws*, may be usefully consulted with regard to the question of the economic justification and limitation of State interference. The relation between investigations in economics and the physical and biological sciences, established by the formation of the economic science and statistics section of the British Association, has also done much for the modern progress of political economy, and the long series of presidential addresses to that section form an invaluable record of economic thought and discovery in recent years. Apart from the practical effect of discoveries in chemistry and physics on agriculture and manufactures, the application of anthropometrical inquiries, and statistical investigation generally, to the study of economics, has long since dispelled the supposed antagonism between economics and the exact sciences. One result of this development of exact investigation has been the recognition of the personal and moral qualities of the labourer, his social surroundings, aspirations, and physical well-being, as economic forces tending to the increase of wealth, through the increase of efficiency. The contrast is apparent when we remember that Senior wrote, "it is not with happiness but with wealth that I am concerned as a political economist; and I am not only justified in omitting, but, perhaps, am bound to omit, all considerations which have no influence on wealth." To-day the happiness of the labourer is regarded as a most important influence in increasing the production of wealth. American statistical investigations in recent years have finally demonstrated the productive superiority of free over slave labour; Emile de Laveleye in his agricultural researches (*L'Economie Rurale de la Belgique*, *L'Economie Rurale en Suisse et en Lombardie*, and *L'Economie Rurale en Néerlande*) has shown, that the personal motive for the avoidance of waste under systems of peasant proprietorship and assured small holdings may more than compensate for the economic advantages of the application of the principle of the division of labour on large holdings. Amongst American economists Schoenhof (*The Economy of High Wages*) has done striking work in this direction. Perhaps the most impressive evidence of the change effected in economic thought by the historical school of economists, and by the recognition of the "interconnection of the sciences" developed by the British Association, is the fact that it is now possible to regard such proposals as that of a legislative eight-hours day and a fixed minimum wage from a strictly scientific, as well as from an ethical standpoint; or, in other words, to consider them as proposals tending to the increase of the national wealth and as true economic limitations in this sense to the doctrine of *laissez faire*. The relation between economics and the exact sciences is, however, not limited to the last half-century. Aristotle was a naturalist as well as an economist; Copernicus and Isaac Newton both wrote on the currency and treated it as a question of fact and observation rather than of doctrine. Of recent writers JEVONS' study of chemistry colours his *Principles of Science*, essentially a treatise on logic and scientific method; his study of geology influences his work on the *Coal Question*, which now influences the finance of this country through turning the attention of statesmen to the necessity of the redemption of the National Debt. And in the present day Suess of Vienna, the author of the great work *Das Antlitz der Erde*, has shown in his *Die Zukunft des Silbers* that the currency question is largely and in some respects essentially a geological question. There was something prophetic in the application of the name "physiocrats" to the first school of modern economists. F. J. F.

VII. POLITICAL ECONOMY, POSTULATES OF. Under this title Walter Bagehot proposed to pass in review the principal assumptions of economic science, as it had been developed in England (his title is *The Postulates of English Political Economy*), and to examine the conditions and the extent of the validity of each. The two essays bearing the title stated deal with *The Transferability of Labour*, and *The Transferability of Capital* respectively. The discussion of the former leads to the conclusion that there are at least four conditions which must be satisfied before it is safe to assume for any nation that labour can pass easily from employment to employment within it. These are stated to be:—(i) The existence of such employments for it to move between; (ii) the existence of an effectual government capable of maintaining peace and order . . . and not requiring itself to be supported by fixity of station in society; (iii) the nation must be capable of maintaining its independent existence against other nations without a military system dependent on localised and immovable persons; (iv) there must be no competing system of involuntary labour limiting the number of employments, or moving between them more perfectly than contemporary free labour (vide *Economic Studies*, p. 40). In discussing the second of the postulates, *the transferability of capital*, the conditions laid down for its applicability are that there should exist: (i) Capital at the disposal of persons who may wish to transfer it; (ii) transferable labour; (iii) such a development of the division of labour as to create what we call "trade," that is to say, a set of persons working for the wants of others, and providing for their own wants by the return-commodities received from the others; (iv) a medium in which profits can be calculated, that is, a *money*, and moreover, a good money; (v) the means of shifting

"money" from trade to trade, such as, the loan fund, the speculative fund, and the choice of employment by young capitalists or some of them.

The fact that some of the most fundamental of these conditions are by no means universally existent warns us that the conclusions of a process of reasoning in which they are implicitly assumed to be true are not to be applied without much care, if at all, to states of society where these conditions do not prevail. Much of the criticism which has been levelled at the position taken up by Bagehot in this matter appears to have as its object the insistence on the lack of universality of the principles enunciated and the consequent inapplicability, without very careful modifications, of these principles to certain problems of modern life, points which Bagehot himself explicitly recognised; one might go further and state that the two papers in which Bagehot dealt with these postulates were devoted to presenting the very view which such critics declare to have been entirely overlooked.

It is greatly to be regretted that the enumeration of economic postulates and their discussion by such a clear thinker and charming writer proceeded no further than the two essays already named. More exhaustive enumerations have been prepared by several writers, generally under the heading—premisses of political economy. Such premisses may be classed either as axioms or postulates, and the enumerations of leading writers include with more or less of precision the axioms: (i) That the earth is of limited extent and fertility, and that the return to capital and labour applied to it follows the law of decreasing returns; (ii) that population constantly tends to multiply faster than the means of subsistence can be increased. Beyond these axioms we have clearly enunciated the postulates (i): That the leading motive of human economic action is that which prompts to seek the greatest gain in return for the least possible expenditure of effort, sacrifice, and risk; (ii) that freedom of competition exists; (iii) that a sufficient knowledge of the market and intellectual power of judging of the efficacy of means to an end exists to enable such freedom to be exercised.

As Dr. Keynes remarks (*Scope and Method*, etc. ch. vii.), "it is clear that such enumerations as these cannot lay claim to completeness." This able writer goes on to point out that postulates are needed in reference to social customs and legal institutions relating to property; in regard to the variation of utility with amount of commodity; and that what is implied in freedom of competition needs more precise explanation.

It may be remarked that it is by no means necessary to retain the same postulates in every part of economic reasoning. This is illustrated by the fact that discussions of the economic effects of monopoly are quite usual, and some modification of the postulate of freedom of competition is obviously demanded for the purposes of such a discussion. The theory of international values is an instance where this same postulate is modified very considerably. To quote once more from Dr. Keynes: "On the whole it seems best to regard any preliminary enumeration and examination of economic postulates, not as definitive or exhaustive, but simply as illustrative of the general character of economic theory." The selection given above comprises those which have been generally considered as more fundamental than others, and which recur most frequently, and which are entitled to special mention on that ground. For special problems the importance of the postulates named may become quite subordinate to that of others neither named nor even referred to here.

[Bagehot, *Economic Studies*, edited by R. H. Hutton, London, 1880. Essays i. and ii., also Essay iii. on *The Preliminaries of Political Economy*. — Senior, *Political Economy*. — Cairnes, *Logical Method, etc.*, Lect. II. and III.—Sidgwick, *Political Economy*.—Keynes, *Scope and Method*, ch. vii.—Cossa, *Introduction to the Study of Political Economy*, ch. vi., and for some criticism of the views generally expressed in the above writers, especially see Cliffe Leslie, *Essays*, No. 15.]

A. W. F.

VIII. POLITICAL ECONOMY, AUTHORITIES ON. The reader is referred for information on the literature of political economy to the separate articles on the various branches of economic science, which will be found throughout the Dictionary. In these, the principal authors whose works may be specially read with advantage in order to elucidate the subject discussed, are mentioned—either in the body of the article itself or in the bibliography at its close. When there is a separate notice of any of these authors in the Dictionary, the name is printed in small capitals. These notices include the principal economic writers in the British Empire, the United States, France, Germany, Holland, Belgium, Italy, Spain, Switzerland, the Scandinavian nations, and Russia, who were not living at the time the notice was written. Many minor writers have also been mentioned in cases when their works are difficult of access to the student, or when what they wrote is important as showing the economic position of their time.

In the historical notices of the different schools of economic thought—the American, Austrian, Dutch, English (including that on English early economic history), French, German, Italian, Russian, and Spanish schools—the principal authorities on economics of the school described are mentioned, and their relation to their contemporaries explained, together

with those circumstances of the period when they lived which may have exercised an influence on their writings.

POLL TAXES. See TAXATION.

POLLARDS AND CROCKARDS were clipped, base, or counterfeit coins of silvered metal, minted chiefly abroad, which under this more or less generic name obtained such an extensive circulation in this country during the greater part of the 13th and the first part of the 14th century, that the most stringent enactments of the three Edwards scarcely availed to cope with the evil.

The word "pollard" is probably derived from the substantive "poll" the head, whence the verb "to poll," meaning to crop or clip the head of anything (cp. "pollard elm").

Crockard may be akin to the Celtic word "crock," a broken piece of pottery, and may have been applied to the broken portions of the penny which circulated as half-pence and farthings in the 13th century.

Writs and ordinances concerning this false money were from time to time issued during the first part of Edward I.'s reign (stat. 3 Ed. I. c. 15; 7 Ed. I. Pat.; 11 Ed. I., m. 4, Oct. 28; (cp. also Ruding, *Annals of the Coinage*, ed. 1840, vol. i. p. 190); and an ordinance of the 12th year (Temp. incert. Ed. I. or II. Stats. of the Realm),—or, according to Ruffhead's Edition 20, ed. 1. stat. 4, 6, a proclamation describes the various kinds of false money then current. It is as follows:—"First they make there abroad a money of silver with a mitre; twenty shillings of which money weighs only sixteen shillings and four-pence of the money of England. Also they make two other sorts of money with lions, whereon there are bends in the one money and not in the other, but which are as light as the money with the mitre.

"Also they make as well on this side the sea as on the other a sort of false money, which is merely of copper, and is whitened, and when new it resembles the money of England. There is also another sort of money which is made in Germany under the name of Edward king of England, which weighs as little as, or less than, the money with the mitre, and that cannot be distinguished, unless it be by weight. The other deceit which they make in the money is that there are some of them who bring plates of pewter or of lead in the form of a penny, then they put them between two leaves of silver, and afterwards insert them into coin or into copper, where another penny well forged hath been struck." Still, in this description the coins are not severally defined by name, nor can we precisely determine whether any of them in particular, or all of them generally, came under the denomination of pollards and crockards. Ruding, after referring to these various counterfeit coins and quoting Hemingford, p. 170, says "they were all white money, resembling silver, and were artificially compounded of silver, copper, and sulphur, so that in four or five of them there was not the weight of one penny of silver."

Although several ordinances against "false money" were passed in succession to that quoted above, notably those of the twentieth year (1292), the first actual mention of these coins by name occurs in the *Stat. de Falsa Monetâ* of 1299 (Ruding, i. p. 199) in which reference is made to the "divers bad monies known by the name of pollards and crokards (*sic, Old French*, 'Crozkard') and by other names, which are brought and left in the said kingdom . . . by divers persons coming from abroad" (Stats. of the Realm, vol. i. pp. 131-134). They were, it appears, introduced by merchants and passengers, concealed in bales of cloth or merchandise, or taken to uncustomed ports so as to escape the officers of the exchange.

In the same year (27-28 Ed. I.) by the king's command the pollard was allowed to circulate at the value of an *obolus*, that is of half a sterling. This estimate of their value is further confirmed by a petition of the twenty-eighth year, where the bailiff of Fiscamp (*sic* Fécamp?) is allowed to pay £100 in sterling in lieu of £200 in pollards, which the sheriff had refused to receive (*Rot. Parl.*, i. 144 *b*). Again, we get a description of the double pollard, five hundred pounds of which weighed, after refining, ccccxxxii lib., x. s., and vii. ob. (£432, 10s. 7d.). Ruding, vol. i. p. 201, note 3.

At the time of their prohibition the king and others had obtained large amounts of pollards in exchange for sterlings, at the rate of five or six for a sterling, "men not caring for them" on account of their reputed baseness. But this calling in of them at such a low value proved a very profitable concern when it was discovered that two of them were equal to a sterling. Ruding (i. p. 207) refers to an alteration in the value of pollards and crockards which took place in the year 1310, and of the entire prohibition of them which followed "as productive of great inconvenience to the counties at a distance from the metropolis." He quotes instances of petitions for sheriffs who had received such money before its value was reduced, but who had not paid it into the exchequer when its currency was absolutely forbidden" (Madox, *Hist. of Exchequer*, i. 294; and *Rot. Parl.*, i. 273). In the chronicle of the year 1299, Matthew of Westminster writes:—"corrupta insula Angliæ de falsa Moneta, quæ dicitur Crokard et Pollard, in Natali Sancti Stephani protomartyris findebatur, id est, pro obolo habebatur. Hinc quidem Lathomi filius, considerans opera patris sui, dum fabricaret Ecclesiam metrice et eleganter dicebat:

"Laude decoreris, nostris Sterlinge gereris,
Crokar es, æsque peris, fugias as rite teneris."

[See *Polychronicon*, Fabian, etc., also Walsingham's *Hist. Angl.*, p. 77, quoted by Ruding, note 6 to vol. i. p. 201.] A. L.

POLLEXFEN, JOHN, merchant, M.P. for Plymton, member of the committee of trade and plantations (1675), and of the board of trade (1696-1705), wrote two anonymous economic treatises.

A discourse of trade, coyn, and paper credit, and of ways and means to gain and retain riches (1697), reprinted with his initials (1700); and *England and East India inconsistent in their manufactures* (1697) (Anderson, *Or. of Com.* ii.

633). The former is a complete exposition of his views on trade and money. He believes in the force of the economic motive which "drawes as the loadstone the needle" (p. 2); and this sentence on the vanity of prohibitions, "The removing of the cause, or the making of such a trade unprofitable, can only afford a remedy" (p. 9), recalls CHILD'S *New discourse of Trade* (ed. 1694) (p. 168). Like Sir D. NORTH and LOCKE he knows that money is a commodity, and measures its commercial value by its weight and fineness (p. 11); and he attributes the export of gold to a variance between value of bullion and rates of exchange which was due to local gluts of coin or bills, and would soon right itself (pp. 20, 21). LOWNDES and BARBON'S scheme for "raising of the coin" is stigmatised as a measure for relieving debtors who have money (p. 24), and as likely to lead to further measures of the same kind and therefore to hoarding (p. 34). He approves of paper money as an aid to, but not as a substitute for, coin, and points out that if inconvertible into coin it will be valueless or else coin will be hoarded (pp. 71, 72); coin must "lye dead" in order to "support it and make it useful" (p. 66). This criticism on the land and store banks of CRADOCKE, R. MURRAY, and POTTER, and (more recently) of ASGILL, BARBON, BRISCOE, and CHAMBERLEN, represents the best results of 17th-century economy. The author (Davenant?) of the reply to his second treatise (itself an answer to Davenant's *Essay on the East India Trade* 1696), accused him of identifying national treasure with coin instead of with commodity; but he only wrote that the national "stock should be in money" (*England and East India*, etc., p. 46), money being "the most useful and best deserving to be called the treasure of a nation"; jewels, lead, etc., being less useful because difficult to exchange; silks, wood, etc., being useless until exchanged owing to their perishable nature (*ibid.* p. 7; *Discourse*, p. 157). Even this modified Midas-view, that coin is the best store of wealth, is kept in the background in the *Discourse*. There the main attack on the East India Co. is based on theories of wealth distinct from money. As with Locke high rents, and as with Child (*l.c.* pp. 88, 179) and FORTREY many men, and as with Child (*l.c.* p. 166), HOBBES, and PETTY many "tools" or "materials," mean much riches (pp. 9, 43, 54, 127, etc.); whereas the Indian trade undid what the naturalisation laws did, and brought in toys and silks, few of which (*pace* DAVENANT'S statistics) were re-exported. He shares BELLERS'S pessimism, and writes that we are "as a tree that hath many branches but little root," as "those that depend to have their riches and necessaries from the sweat and labour of others are more in proportion than those that labour to provide these things" (p. 44). Like Sir W. TEMPLE, who merely adapts HOBBES, he treats bodily and mental labour (pp. 43, 46) and parsimony (pp. 80, 158) as the source and secret of "movable riches"; but echoes BACON'S echo of MORE'S lament that the brain labourers are mostly drones (pp. 44, 46), and that luxury is ousting parsimony. Since VIOLET (1651) there had been a busy controversy on unproductive consumption (Cunningham, *Growth of English Industry*, ii. 239) but no one else put the impoverishing effect of foreign luxuries into the forefront of the Indian controversy, nor did any other writer make his first and main appeal to public opinion; "no reformation can be proposed that can do us any good but what must begin with ourselves, laws being dead letters unless the genius of our people, course of living and management, can be so changed as to co-operate therewith" (p. 153). But the writer of the *Discourse* was, like Davenant, only a great eclectic (he compares his views to Child's, ROSCHER compares them to NORTH'S, etc.) so that you cannot argue with certainty from his theory to his practice. *England and East India*, etc. was written in support of the Foreign Lace Act (9 Will. III. c. 9, amending 13 & 14 Car. II. c. 13), nor does he understand, like Davenant, the specialisation of industries, and he wants to prohibit the export of wool and import of manufactured goods in order to keep Englishmen employed. Indeed his suggestion to prohibit the export of over £50,000 in specie to India is reactionary bullionism. He scarcely applies his notion of foreign to domestic trade. He balances trade with each country out of the custom-house books after the fashion riddled through and through by Barbon and Child (*l.c.* p. 154). But he wants any one to be free to trade at anything, sympathises with Sir H. Pollexfen's defence of interlopers, wishes to turn joint-stock into regulated companies, and opposes to Child's revival of CULPEPER'S theory of interest arguments forged from the armoury of MADDISON (1640), MANLEY (1668), PETTY (1682), North and Locke (1691).

[Roscher, *Zur Geschichte der englischer Volkswirthschaftslehre*, pp. 111, 135-146.] J. D. R.

PONT DE NEMOURS, DU. See DU PONT DE NEMOURS.

PONTAGE. Money paid in lieu of personal service for the building and maintaining of bridges (see FYRD). In later times the word was also used for the tolls paid by persons passing over a bridge, which were devoted to its maintenance (Cowel's *Interpreter*).

A. E. S.

PONTANO, GIOVANNI (1426-1503). Born at Cerreto, Umbria (Italy), of noble parentage. Banished from his country, he took refuge with Alphonso I. of Aragon, king of Naples. Here he devoted himself to study; was loaded with honours and riches, served the house of Aragon as a minister and ambassador, and suggested reforms which ameliorated the economic condition of the Neapolitan provinces.

Pontano wrote in Latin several works: *De Magnanimitate.—De fortuna.—De prudentia.—De liberalitate.* A disciple of Aristotle, Pontano wrote on wealth, on labour, and the causes which render it more or less productive, on necessity as a stimulus to work. But, in substance, his researches present no originality, following closely the opinions expressed by Aristotle in the first book of his *Politics*.

Pontano discusses the duties of a prince, maintains that he should aim at promoting the public welfare, encourage trade and industry, and strive

to develop the intelligence of his subjects. On the question, debated by writers of his day, whether the state should carry on industries, he is among those who oppose such interference; but he does this only on moral grounds and reasons of expediency, and not by economic argument.

His precepts on taxation are sound, he gives good advice on economic morality, he opposes immoral taxes, as for example the tax on prostitution (*Opera omnia*, Naples, 1505-1508, 2 vols.).

[Fornari, *Delle teorie economiche nelle provincie Napoletane*, vol. i. Milan, Hoepli, 1882.]

U. R.

POOL. A division either of traffic or of its proceeds among several competitors, so as to remove the temptation to undersell one another. The word is used in America to designate what in England are known as joint-purse arrangements, but is of somewhat wider application. Pools may be divided into four classes. (1) *Divisions of the field*, where each competitor agrees to take the traffic of a certain district and withdraw from competition elsewhere. (2) *Divisions of traffic*, where the different competitors agree upon a percentage of the business to be handled by each concern. (3) *Gross money pools*, where they agree upon a percentage of the gross receipts. (4) *Net money pools*, where they agree upon a percentage of the profits. The last is much the closest form of combination, and generally involves a system of joint accounting.

The advocates of pools urge that they prevent reckless competition and consequent instability of rates. Their opponents claim that the effect of pools in keeping rates high more than offsets any gain to the community from keeping them steady. The traditional common-law view favours the opponents of pools (Charlton *v.* Newcastle and Carlisle Railway Co., 5 Jur. N.S. 1096). Pooling agreements are usually held to be contracts in restraint of trade, and therefore against public policy; so that in the majority of instances the courts will refuse to make such agreements a ground of action (Harlford and N.H.R.R. Co. *v.* New York and N.H.R.R. Co., 3 Rob. (N.Y.), 411; Stewart *v.* Erie and Western Trans'n Co., 17 Minn., 372, etc. etc.) Whether pools are really against public policy or not depends on the relative importance of stability and equality of rates on the one hand, as compared with that of absolute lowness of rates on the other. In industries of a quasi-public character, it may be more desirable that different individuals should be charged the same rates than that a lower average charge should be reached by making reductions for some and not for others. Under these circumstances pools may be a public advantage rather than otherwise. This is especially the case in railroad transportation. The working of the clause against pools in the INTERSTATE COMMERCE LAW (*q.v.*) has been distinctly bad. Not content with making these contracts void, as they perhaps were at common law, the framers of this statute made railroad pools a misdemeanour; causing much fluctuation in rates, and money losses to investors, without corresponding gains to consumers or producers as a class.

The attitude of the courts in England (Hare *v.* London etc. Railway Co.; 2 Johns and H., 480) toward such contracts is distinctly more favourable than in the United States, and on the continent more so than in England. The government railroads of Prussia, Austria, and other states have gone so far as to enter into permanent pooling arrangements with competing water routes; the authorities holding that by this means only can freedom from wasteful competition and unjust preference be effectively secured.

A. T. H.

POOR. Any treatment of the subject of the poor is rendered difficult by the loose way in which the term is applied. We distinguish the official and, to some extent, historical use of the term as applied to the class who are the objects of relief at the hands of the state in this country. We speak commonly of the poor law, relief of the poor, the poor-rate, guardians of the poor, etc. But since 1843, at any rate, a more exact usage has been gradually adopted, and the fact has been brought out that the objects of assistance under the poor law are only one section or class of the poor as a whole, viz. the destitute, or those who are in want of the necessaries of life. Outside and beyond there lies a large mass of men who are rightly described as poor, but who, being possessed of the necessaries of life, are in want of a larger or smaller amount of its comforts. Thus we may say that the term, officially employed, includes the destitute, but is not confined to them. When we read that the "poor are always with us," we mean that as the standard of living varies, whether in different countries or at different times, so the conception of poverty will vary, but the fact remains that many of the members of every community will fall below the average standard of comfort in living. In short, poverty is a relative, and destitution an absolute state.

This distinction between the poor and the destitute has led to a difference of treatment at the hands of statesmen. Whilst destitution is recognised, perhaps more and more generally, as a proper field for state-action and state-relief, poverty has, as a rule, been left to other organisations, or to individuals for assistance. There are not wanting instances, notably in the last century, when a confusion of ideas on this subject bred infinite practical mischief. Thus when the Berkshire magistrates put forth the celebrated "Speenhamland Act of Parliament" in the year 1795 they were misled by a vague use of language. In their opinion it was the business of the state to guarantee every

labourer the standard of living which they deemed sufficient, hence, when wages were insufficient to maintain such a standard, the deficiency was to be made good out of the rates (see ALLOWANCE SYSTEM). But experience has condemned such attempts, and the attitude of the state towards poverty has been one of two kinds.

I. The state has commonly adopted a policy of *laissez-faire*. It has left the care of the poor and the improvement of their condition to individual or organised action outside itself. Thus in mediæval times the poor were a charge on the revenues of the church. How far a specific portion of the tithe was devoted to their relief is a matter of dispute, but no doubt a moral responsibility lay on the clergy to provide for "God's poor." History shows us that the clergy and, still more, the monastic bodies were often mistaken in the methods they adopted. They did but relieve, as an old writer says, the poor that they had made.

II. Giving up the doctrine of *laissez-faire*, the state has found a new activity as regards the poor. Granting the existence of poverty, and leaving it as a *fait accompli* to be assisted by others, the state has directed its efforts to making easier the escape from it. It would take us too far to enumerate all the various agencies at work to achieve this end. Education is clearly one, temperance legislation is another, inspection, etc. of the dwellings of the poor is a third, and if we look yet further afield we shall see that laws against TRUCK, to secure free trade, and a good currency all help to secure this object. But shortly, the state may be said to have abandoned the attempt to deal with actual poverty, but to show an ever-increasing activity in preventing its appearance and in modifying its effects (PUBLIC ASSISTANCE; POVERTY).

L. R. P.

POOR LAW, ADMINISTRATION OF. The existence of a poor law implies a redistribution of wealth by the state in proportion to men's needs. Under such a law the destitute have a claim to relief, *i.e.* to the necessaries of life, and these clearly can only be provided at the cost of those who possess wealth in excess of their actual needs, and from whom it is taken by the state in the form of taxes. Now any such interference with the arrangements of society is sure, human nature being what it is, to produce certain results, some general, some peculiar to this form of interference. Thus we may expect a poor law to weaken the motive to exertion and to thrift. If the burden of providing for himself at any period of life is taken off the shoulders of a man, he is less likely to make such provision than when conscious of the necessity to do so, if he wishes to avoid starvation. So, too, he is more likely to be reckless in his manner of living. If it is indifferent to a man whether he supports himself in old age, or is supported by the state, he is strongly tempted to squander in dissipation what should have gone to maintain him when his working days are over. Again, if he knows that provision by the state will be easily given, he is thoughtless in the matter of marriage, and population increases rapidly. Once more, though this is open to discussion, the relations between parents and children, their mutual responsibility, is weakened by a system which provides support independently of the assistance due from the one to the other. Thus some writers connect the warmth and closeness of family relations in Ireland with the long period during which no poor law obtained in that country. Lastly, the relations between employer and employed, roughly summed up as the labour market, are likely to be disturbed if the state supports its members independently of their earnings. If a man's income falls into two parts, one of which is the reward of labour, and the other is given independently of labour, the latter will soon eat up the former. So, too, the provision of pensions in old age is likely to prevent wages from rising to a point at which they permit of such a provision being made out of them. The extent to which these evils follow on a poor law will depend almost entirely on the way in which it is administered, for we need not, in this connection, discuss the general arguments by which a poor law is justified or defended.

If we consider the history of the English poor law from the date of its first definite beginning in 1601 down to the present day, some very clear conclusions may be reached. The spirit and the methods of administration have varied greatly during the three centuries which it has lasted. In some periods it has been administered strictly—in other periods the administration has been lax, and the variations are to be explained partly by reasons incidental to the state of society at a given date, and partly by the want of a scientific spirit in tracing the connection between effects and their cause. First of all, to define our terms. A poor law may be said to be administered strictly when the right to relief is circumscribed and restricted, when the conditions under which it is given are uninviting, or even deterrent, when the state of the recipient is less attractive than that of the independent labourer, and when political or other disabilities are attached to its receipt. On the other hand, when relief is obtained easily, and is open to all, when it is given under conditions which make it an object of desire rather than a thing to be avoided, and when no distinction is drawn between the pauper and his neighbours, then the administration is said to be lax. Now, roughly, these two principles are seen in the distinction be-

tween "indoor" and "outdoor" relief. Indoor relief is accompanied by enforced residence in a workhouse, with the accessories of a restricted diet, separation of sexes, a loss of liberty, a system of discipline, a prescribed uniform, and a more or less common life. All these features are peculiarly obnoxious to a domestic people, such as the English; though, doubtless, they affect different individuals differently. No such drawbacks attach to outdoor relief. The outdoor pauper receives his relief, whether in money or in kind, at his own home, he is surrounded by his family, he is his own master, he can eke out his dole by small earnings, he can take an interest in his surroundings, he leads a life of comparatively careless leisure. And by a natural train of thought, public opinion has placed a stigma on the receipt of indoor relief which is not connected with outdoor. Not for themselves only, but for their relations, do men shun the workhouse, and all that residence within its walls implies. To condemn a parent to the workhouse is held to be discreditable in children, to secure outdoor relief for him is regarded as a triumph of filial diplomacy. In considering the lessons to be learnt from the history of the English poor law, we shall regard a strict administration as identical with the use of the workhouse as a test of destitution, and as the normal form of relief, and a lax administration as going with the substitution of relief in the pauper's own home for relief in the workhouse.

In the earliest period of poor-law administration the workhouse was by comparison but little employed, but a substitute for it was found in the exaction of work from the able-bodied recipients of relief, for the "aged and infirm" relief was provided either in their own homes or in a poorhouse, built by the parish for the purpose, intended for the aged and infirm only, and consequently more on the lines of an almshouse than of the modern workhouse. But the intentions of the framers of the act of 1601 with regard to the able-bodied were defeated by the action of those who administered it. So long as its administration was confined to the duly elected and responsible overseers in each parish, the mischiefs of the system were kept within narrow bounds. It was the action of the magistrates, who overrode the decisions of the overseers, in virtue of an act of the year 1691 (3 W. & M. c. ii. § 11), that gradually developed these mischiefs. Relief was granted on "false and frivolous pretences," the labour test was applied in a half-hearted fashion or not at all, and by the middle of the 17th century we find proposals for making the test more real, by providing places in which the task of work should be performed. By the end of the century local bodies were busy obtaining private acts for the purpose of building "work-houses," or "houses of industry," following in this the example set by the city of Bristol. In 1723, by the act 9 Geo. I. c. 7, was authorised the building of such houses, and the use of them as a test, by individual parishes, or by parishes in combination. The results of this growing strictness are to be seen not merely in a decrease of pauperism, but in the increased prosperity of the working class as a whole.

But the system, as was inevitable, raised a reaction against itself. Feelings of humanity (so called) were shocked by its strictness, men forgot the evils which it had remedied, or at any rate the fact that it was the system which had lessened them, and little by little the administration grew laxer and laxer. Workhouses fell into disuse, the overseers were called upon to find employment (ALLOWANCE SYSTEM), the aged and infirm were relieved at home, the maintenance of children was assisted by grants, and gradually the idea was impressed on the mind of the poor that it was well to look to the parish first for the necessaries and comforts of life, and to their own exertions only when this source of supply failed. The melancholy tale of the results of this experiment are written at large in the histories of the period, in monographs, and in the report of commissioners appointed to inquire into the system of poor-relief in the year 1832. Shortly, it may be said that this second period, from 1750 to 1834, showed in the clearest light the effects of a lax system of administration. It had cut at the roots of independence and self-help; it had fostered suspicion, heartlessness, and vice, had paralysed industry, and lowered the moral no less than the material standard of living all through the country.

The return to strictness after 1834 remedied, though slowly, the state of things which laxity had produced. Able-bodied pauperism, by comparison, disappeared; old-age pauperism was greatly diminished, the encouragements given to population were lessened, and the returns of illegitimacy began to fall off. The principle of the act of 1834 was to make the position of the pauper undesirable, and with that object relief was to be confined, as far as possible, to the four walls of a workhouse; only sickness and old age were allowed as reasons for giving relief at the pauper's own home. It would no doubt be an exaggeration to say that the improvement in the condition of our working class in the last half-century is mainly due to the reform of the poor law alone. But if we have succeeded in showing that certain results might be expected from certain methods of administration, and that in practice such results are shown to have followed, it is not going too far to say that a strict administration is a negative condition of the well-being of the poor, and that a

relaxation is likely, if not certain, to favour the growth of misery and the decay of character.

So far we have been endeavouring to show that the administration of a poor law should be strict, if the evils contingent on its existence are to be avoided, or repressed, and that a strict administration is in the best interests of the poor themselves, and therefore dictated by humanity no less than by reason. We go on to ask how such strictness may be attained. Now it is a cardinal truth that in a democratic state, laws will only be enforced so far as they are supported by, and in harmony with, public opinion. The act of 1834 erred, perhaps through the needs of the time, in building up a system which derived its strength largely from its centralisation. The area within which the local bodies can act at their own discretion is very small. Hence the poor law has never recommended itself to the popular mind; it has been resented as being imposed from without, and its administration has been improved mechanically, without reference to the popular support on which it must ultimately rest. The effect of a recent act (*Local Government Act* 1894) has been to throw the control of the administration into the hands of the great body of the population, and the results of the change are anxiously awaited, for it has coincided with a tendency on the part of public opinion to favour a more lax system. But as knowledge grows and experience widens their lessons cannot fail of effect, and we may look hopefully forward to a new period of poor-law history, when strictness will be the rule, it may be after some experience of the evils of laxity, and when it will be guaranteed, not by the edicts of a central authority, but by the heartfelt support of the great body of public opinion acting through its representatives, no less than through its officers.

It remains only to notice some points on which administration may be amended.

(1) It is quite possible that, owing to the rise in the standard of living all over the country, the condition of the inmates of workhouses might be improved without its ceasing to act as a deterrent, and it may safely be left to the ratepayers to determine how far they are willing to contribute to increase the comfort of such inmates.

(2) The restriction of outdoor relief is proceeding gradually, and its ill effects are fast disappearing, partly in consequence of the scale on which it is given, a scale which stands in a totally different relation to the standard of living from that in which it stood to the standard at the time at which it was adopted. The extinction of this mischievous system can only be the result of greater knowledge and sounder reasoning, and will probably only be achieved after a great increase in the powers of guardians.

(3) The treatment of the sick has been greatly improved of late years, and, in London especially, the workhouse infirmary is coming more and more to be regarded as a public hospital. The question may be asked whether this principle should not be carried further; and the disabilities of pauperism removed in cases where the sickness of the patient is such as to necessitate his treatment in an institution. If this were done all outdoor medical relief might be discontinued, and the poor encouraged to make provision for themselves against slight and ordinary ailments by means of provident dispensaries and the like. But such a scheme would perhaps involve the treatment of the hospital question as a whole.

(4) The education of pauper children is still a field for experiment and observation. The systems adopted vary greatly. In some unions the children are brought up and taught in the workhouse itself, in others they live in the workhouse and attend the common schools of the place, in others they are placed in large boarding-schools distinct from the workhouse geographically, but an integral part of it; elsewhere they are boarded out, or placed in small groups in cottage homes under the care of foster parents, these homes being in some cases formed into an artificial village, in others scattered through ordinary villages. It can only be said that no one system has yet made good its claim to be considered exclusively the best.

(5) The treatment of vagrants has already been considered (MENDICITY).

[For the system of administration at various dates the works of Aschrott, Fowle, and Nicholls, so often quoted, are full of information, and further authorities will be found in the references contained in those works; see also LEGISLATION, ELIZABETHAN.] L. R. P.

POOR-LAW HISTORY. It is not possible to name a date at which the legislature determined to have a poor law. The origins of the poor law are derived from FEUDALISM. Settlement and the claim to relief are developments of the SERF'S obligation to work on the land of the MANOR, and his corresponding right to derive a maintenance therefrom. When this condition of *status* had given place to hiring and a system of contract, the right of the lord of the manor to bring back his serf to the place where his labour was due, ceased to be valuable. The presence of the serf, where his labour was no longer required, became a burden. The duty of maintaining him, when destitute, was transferred from the manor to the PARISH. The assumption that the poor were *adscripti glebæ* runs throughout. The right to *bring back* having fallen into desuetude, the right to *drive out* the unsettled poor naturally arose. The authorities of the parish church were enjoined to make collections for the poor. The church-

wardens, the curate, and then the bishop were to exhort, and if the people proved contumacious the justices were to order an assessment. This brought on the general assessment of 43 Elizabeth, c. 2 (1601). Was this act a necessity? The alternative pursued in Scotland is instructive. The legislature of Elizabeth followed similar legislation enacted for Scotland, but as was remarked by a parliamentary committee reporting in 1817: "the intelligent persons to whom the administration of it has been entrusted . . . appear to have had so much foresight and judgment as to its effects, that they have very generally and successfully endeavoured to avoid having recourse to its provisions for a compulsory assessment." Till 1845 there was in Scotland no universal assessment for poor rates. The authority of the English precedent then decided the policy of the northern country.

The stronger government of England did not permit "intelligent persons" to evade the law. Henceforward, down to 1834, a perpetual struggle went on between the relief authorities and the relief claimants, as the following brief references will show.

The 13 & 14 Charles II. c. 12 (1662), bears the title "An Act for the better Relief of the Poor," but it is usually known as "The Settlement Act." It recited that poor people migrated in search of better "stock," *i.e.* employment, and it is apparently assumed that they would not do so if, in their own parishes, benefit under 43 Elizabeth was not withheld. The act was promoted in the interest of the metropolitan parishes, then causing alarm by the growth of their population. At this date the policy of the legislature was to enforce concurrently rigidity of settlement and facility of relief. Henceforward the problem was to curb the abuses to which these regulations gave rise.

Thus 3 & 4 William and Mary, c. 11 (1691), recites that overseers are criminally profuse, accordingly the vestry and the justices are given certain controlling powers. The act had an effect contrary to that expected. The 9 George I. c. 7 (1722), recites that far from controlling, magistrates increased the prevalent mismanagement. Accordingly this act authorised the building of workhouses, and the withholding of relief from those who refused to enter them. This provision, where workhouses were used as a test of destitution, checked the advance of pauperism. The 22 George III. c. 33—GILBERT'S ACT (1782), obliged guardians, in parishes which adopted its provisions, to find for all unemployed poor persons work suitable to their strength and near their own homes. The 36 George III. c. 23 (1796), found that the workhouse test, as permitted by 9 George I. c. 7, was "injurious to the comfort and domestic situation and happiness of such poor persons," and justices were authorised to order relief to "industrious poor persons" at their own homes. By this legislation every obstacle to pauperism was removed. The rout was further accelerated by the proclamation of allowance scales by the county magistrates.

One act of reparation, 35 George III. c. 101, "An Act to prevent the Removal of Poor Persons until they shall become actually Chargeable," was passed in 1795. It was rendered necessary by the unrepealed provisions of acts for the better relief and settlement of the poor. Adam SMITH has commented on the cruelty of these ill-considered laws of settlement, but Sir F. EDEN, without palliating their criminal unwisdom, thinks that they could be easily evaded. The complete adscription of the labourer to his settlement was not brought about by the power of removal resting with the parish into which he migrated, but by the inducements to remain in his settlement held out by the profuse administration of relief, and by the refusal of employers to hire any but those who were partly supported by the rates. The law which made the unsettled labourer liable to removal was practically inoperative, but the laws for the better relief of the poor had the unexpected result of reducing the labourer to the immobile and dependent condition of a feudal serf.

The task of the Commissioners of Inquiry appointed in 1832 was to expose and suggest a remedy for these evils. Their celebrated Report was drafted by Mr. Nassau SENIOR, aided by Mr. (afterwards Sir) Edwin CHADWICK. It proved the incompetence of all the authorities then administering the law, and recommended a new central control, which should be independent of political party, a principle already recognised by the government in the appointment of the enquiry commission. It proved also that property was being destroyed by the relentless advance of pauperism, that employers were defrauding the public by throwing their wages-bill on the parish, that labourers were being deprived of every motive for doing honest work, that the domestic life of the poor was being ruined by the parish endowment of bastardy and the neglect of all family affection, that the attraction of the so-called benefits of this spurious philanthropic legislation was confining the labourer to his parish, bereft alike of energy and hope. When we consider how entirely the economic progress of the working class has depended on the facility with which labour has been able to distribute itself and find its profit in new and ever-changing conditions of industry, it will be obvious how injurious this perverse legislative endowment of immobility has been. The mobility of labour and its transferability to different industries, more especially through its power to direct the labour of the young, are the elements which prevent labour sharing the fall of prices, the

inevitable result of free trade and increased manufacturing skill.

The new Central Authority, it was recommended, should have power to issue orders regulating the local administration. The principles which these orders were to inculcate were summed up as follows:—The condition of the pauper must be less eligible than that of the independent labourer. All relief given to the pauper at his own home must be deemed inconsistent with that rule. The poor law is for the relief of destitution, not of poverty. A precise and practical definition of destitution was added. A man is destitute when he is willing to relinquish the maintenance derived from his own resources for one provided for him in a well-regulated workhouse. In short, the workhouse test is the sole method of fulfilling these conditions. Experiments on these lines had been tried at Southwell and Bingham and had succeeded in effecting the emancipation of the pauper. The workhouse, though a measure of confinement for a few individuals, was an instrument of emancipation for a whole class.

An act based on these recommendations was passed in 1834. The prohibition of outdoor relief to the able-bodied, issued by the new central authority, had an almost miraculous effect. Pauperism, it had been generally assumed, was caused by the growth of a surplus population. When confronted with the workhouse, that drastic instrument of social surgery, the alleged surplus disappeared. The farmer and manufacturer, no longer able to draw their wages fund from the rates, and relieved of the burden of wasteful parish expenditure, paid their labourers an adequate reward. The majority of the labouring population found work in their own parishes or the next parish, others migrated to the manufacturing districts. For this last movement the commissioners organised facilities. By these measures the independence of the able-bodied labourer was secured, and the healthful circulation of labour restored. Violent opposition was offered to further reform. The three commissioners yielded to the storm and confined the application of their principles to the pressing case of the able-bodied, during the period that they actually were able-bodied. They thus gave a narrow interpretation to the responsibilities of the able-bodied. Owing to the unpopularity of the commission, it was deemed advisable in 1847 to alter the constitution of the central authority. The Poor-Law Board was accordingly created, and the central authority, which had hitherto been indirectly represented by the home secretary in parliament, became a department of state, and its president a member of the government. A period of exhaustion seems to have followed the strenuous efforts of the commissioners. About 1869 there was a revival of interest. In that year Mr. Goschen issued a circular from the Poor-Law Board calling attention to the necessity of a stricter administration of the law, and pointing out the utility of co-operation between the poor law and charitable agencies as a means of promoting that end. Mr. Fawcett's *Pauperism*, a courageous attack on popular prejudice, was published in 1871.

The conferences for the discussion of poor-law administration were established between 1868-1870. Admirable reports on the abuses of outdoor relief, in the country by Mr. E. H. Wodehouse, 1871, in the town by Mr. (afterwards Sir) Henry Longley, 1873, were issued by the Local Government Board which, in 1871, took over the duties of the Poor-Law Board. The London Charity Organisation Society was founded in 1868, and its members have very actively taken up the question of the better administration of the poor law.

The arguments of these reformers may be briefly summarised:

They desire to carry the principles of 1834 to their logical conclusion. The maxim, that the condition of the pauper must be less eligible than that of the independent, cannot be confined to the able-bodied at one period of his life. The responsibility of the able-bodied does not exclude sickness, old age, and the wants of those dependent on him. Successful experiments of a strict indoor relief policy continued at Bradfield, Stepney, Whitechapel, and other places for over a quarter of a century are quoted in the same way as were Southwell, Bingham, and Uley in 1834. Pauperism of all forms is slowly but surely being eradicated by the policy there pursued. Economic progress is built up by the successful discharge of responsibilities, and the future of the working class depends on their retention of the right to meet them. The text set by Mr. Goschen in 1869, that charitable funds must be used to meet the hard cases which might otherwise be turned to make bad law, is strongly urged. The substitution of outdoor relief from a voluntary as against a legal source is an advance, for a voluntary fund does not exercise the same baneful fascination over the imagination of the poor, as the apparently inexhaustible funds put at their disposal by the poor law. The old poor law impeded the labourer's progress in exchanging status for contract; the maladministration of the new law atrophies his capacity for complete economic independence. Since 1867, a year marked by the passing of the Metropolitan Poor Act, great improvements, involving much additional expense, have been made in poor-law schools, infirmaries, and workhouses. This policy has in many cases been carried out in connection with a stricter administration of outdoor relief.

These views make progress, but they do not appeal to the majority which is guided by sentiment and long-established custom. As

Burke once remarked: "Reason is fatigued; experience has given judgment; but obstinacy is not yet conquered." Guardians have it in their power to eradicate or to multiply pauperism to an indefinite extent. Whether the legislature, especially in a democracy, will ever see fit to limit a discretion too often abused is a question which only the future can determine.

[Poor-law literature is so large that a short bibliographical note must necessarily be inadequate. The following are leading authorities, arranged to some extent chronologically. R. Burn, *The History of the Poor Laws*, London, 1764, gives a learned account of the continuity of our English poor-law system. Sir Frederic M. EDEN, *The State of the Poor, or a History of the Labouring Classes in England from the Conquest to the Present Time*, 3 vols., London, 1797, has collected, in the most painstaking and judicial spirit, an invaluable encyclopædia of facts and opinions. During the troubled period, 1796-1834, innumerable pamphlets and more ambitious treatises appeared. The general characteristics of the time may be sufficiently gathered from Sir G. NICHOLLS' *History* and from the *Report of the Poor-Law Commissioners*, 1834 (see below). It may be enough to mention that BENTHAM'S works, particularly *Tracts on the Poor Law*, printed in vol. viii. of his collected works, should be consulted for the origin of some of the ideas afterwards incorporated in the Poor Law Amendment Act 1834. The connection can be traced through the influence and writings of his disciple, Mr. (afterwards Sir Edwin) CHADWICK; see *The Health of Nations: a Review of the Works of Edwin Chadwick*, by Benjamin Ward Richardson, 2 vols., London, 1887, and pamphlets by Sir E. Chadwick too numerous to set out in detail. The publication most fruitful in result belonging to this period is probably *Eight Letters on the Management of our Poor, etc.*, by an Overseer, Newark, 1822, reprinted from the *Nottingham Journal*. This was the work of Mr. (afterwards Sir George) Nicholls, and contains an account of the dispauperisation effected at Southwell and Bingham by methods which the legislation of 1834 sought to make universal. The classical document on the whole subject is the *Report of the Royal Commission*. This was appointed in 1832, and its report was published in 1834. A preliminary volume entitled *Extracts from Information received by His Majesty's Commissioners, etc.*, was issued in 1833. The report and appendices of evidence run to over 8000 pages folio. The report has been reprinted as a parliamentary paper. The standard work on the subject is *A History of the English Poor Law*, by Sir George Nicholls, K.C.B., late Poor Law Commissioner and Secretary to the Poor Law Board, London, 1854 (new edition published 1898). He passes somewhat lightly over the opposition to the new poor law which fell within the period of his own official career. This omission can be supplemented by reference to the file of the *Times* from 1834-1850, or by consulting such books as *The Book of the Bastiles, or a History of the Working of the New Poor Law*, by G. R. W. Baxter, London, 1841; or the more reasonable *Letters of S. G. O.* (the Rev. Lord Sydney Godolphin Osborne), two vols., London, 1891. *Pauperism: its Causes and Remedies*, by Henry Fawcett, London, 1871, contains a valuable interpretation of history; Dr. P. F. Aschrott's *Das Englische Armenwesen, etc.*, Leipzig, 1886 (translated under the title, *The English Poor-Law System*, London, 1888), is a most valuable and well arranged manual; *The Better Administration of the Poor Law*, by W. Chance, Hon. Sec. of the Central Poor-Law Conference, etc., London, 1895, contains the best exposition of different methods of poor-law administration; *Children under the Poor Law*, by the same author, London, 1897, gives a very full account of a special branch of work.

The opposition to what in the text has been called the "party of reform" has not often sought the publicity of print. Mention may be made, however, of (1) a paper, "On the Advantages of Out-door Relief," read at the Central Poor-Law Conference, 1891, by Mr. Mitcheson of Rugby. For a criticism on his statistics see a paper by Mr. Chance, *Charity Organisation Review*, May 1892. (2) "Plain Words on Out-door Relief," London 1894—an anonymous pamphlet and correspondence in the April and June numbers of the *Charity Organisation Review*, 1894; also *Report of the Whitechapel Guardians* for year ending Lady Day, 1894. (3) Also for an argument in favour of an almost indefinite extension of relief facilities, paper read by Mr. George Lansbury, of Poplar, at Central Poor-Law Conference, 1897, on the "Principles of the English Poor Law"; and *Fabian Tract*, No. 17, on "Reform of the Poor Law." For fluctuations of popular and official opinion see Reports of the Poor-Law Conferences (for list of subjects discussed, see index to *Report of Central Conference*, 1896), and Annual Reports of the Poor-Law Commission, the Poor-Law Board, and now of the Local Government Board. T. M.]

POOR LAW, SCOTCH. In its origin and early history the poor law of Scotland closely resembles the corresponding legislation in England and many of its enactments are obviously modelled on the latter. The primary object of both was the suppression of VAGRANCY rather than the relief of destitution. In a society organised on feudal principles, involuntary PAUPERISM was of necessity comparatively rare, while the "sornare" or sturdy beggar was the crying evil of the time. Even from the first, however, it was impossible to ignore the existence of a certain amount of helpless pauperism, and the suppression of vagabondage was seen to involve the organisation of beggary. Thus the acts of 1424 with which Scotch legislation on the subject may be said to begin, permitted begging only to those below fourteen and above seventy, with a further exception for the impotent, who were to wear a badge.[1] Then in 1535 begging was forbidden outside the parish of birth, the headmen of which were also instructed to make "takings" or collections for the support of its poor. The foundation of parochial responsibility was thus laid; the structure in its essential features was completed by the comprehensive statute 1579, c. 74, to this day the basis of the Scotch poor law, as the act of 1601 is that of the English. Between 1579 and 1698 a long series of enactments were passed to facilitate the enforcement of the law, but they left its fundamental principles unaltered. The same may be said of the only important enactment of the last two hundred years—the Amendment Act of 1845, which however has greatly modified the practical administration of the law.

We will now consider briefly the leading features of the Scotch poor law, with special reference to the points in which it differs from the English. In the first place the distinction between the masterful beggar and the impotent poor was decisively emphasised by the act of 1579, which prescribed for the former the ferocious punishments characteristic of the time. In 1617 they were after the English fashion committed to the care of the justices of the peace, and the parish constables to be appointed by them. In 1663 a species of enforced slavery was authorised, and by the act of 1672 and the proclamations of the privy council in 1692 and 1698, correction houses were prescribed, but without result. Owing to

[1] The most highly privileged mendicant in Scotland was the "Blue-Gown" or King's Bedesman. The class became extinct about 1863, but the type was immortalised by Sir Walter Scott in Edie Ochiltree of the *Antiquary*.

the relatively backward and unsettled state of the country, vagabondage long continued a much more serious evil in Scotland than in England, but the treatment meted out to the vagrant has been broadly similar in the two countries. In Scotland vagrancy is now dealt with by the police under 25 & 26 Vict. c. 98, 1862 (see VAGRANCY). In their treatment of the able-bodied poor, however, as apart from vagrancy, the English and Scotch poor laws are radically dissimilar. The provision in the act of 1601 granting relief to the able-bodied in exchange for work has no counterpart in the Scotch law. In England the principle thus admitted gradually received a more generous interpretation, till early in this century it was made to sanction a wholesale system of out-door relief to the able-bodied, with results disastrous to the nation and more especially to the independence and morality of the labourers themselves. But in Scotland the class of persons entitled to claim relief as a right, remains, as under the act of 1579, those who, being wholly or partially disabled by age or infirmity, "of necessitie mon live bee alms." When the impotence is permanent its subjects are placed on the regular parish roll; when merely temporary, relief is given during disablement. But these classes, denominated respectively the regular and the occasional poor, have alone a right to demand relief, and able-bodied persons out of employment cannot even at the discretion of the authorities be legally ranked as occasional poor. The expediency of adhering to this principle under the conditions of modern industry with its recurring periods of depression will naturally depend largely on the adequacy of voluntary effort to meet the demand made upon it on such occasions. The experience of England, where the claim of the able-bodied is admitted, has, at all events, done much to strengthen the case in favour of the Scotch system.

The establishment of a settlement or right to relief in a parish depends on birth or residence for a term of years. By the act of 1845, five years' continuous residence without recourse to common begging is required for the acquisition of a settlement, and at least one year's continuous residence in any subsequent period of five years for its retention. Wives follow the settlement of their husbands, and children of their parents. Relief, however, cannot now be refused to the impotent who have no settlement in the parish, but the relieving parish is given recourse against the parish of settlement. The law of settlement in Scotland, though the source of considerable litigation and expense, has always been free from the peculiar hardships so closely associated with the working of the English law. A power of removal of persons likely to become chargeable, such as existed in England from 1662-1795, has never been known in Scotland. There no one is liable to be removed who does not actually solicit alms, and as a consequence the checks and counterchecks which complicate the operation of the law in England are entirely absent.

By the act of 1579 the authorities entrusted with the administration of the law were the magistrates in burghs and the justices in landward parishes, who were instructed to appoint overseers and collectors. But the constituted authorities seem to have been lacking in zeal, and before the close of the century the enforcement of the law had been committed to the kirk-session with the assistance of the presbytery. During the civil war the powers and duties of these ecclesiastical bodies in respect of the poor naturally fell into abeyance, to be restored, however, in 1672, with the substitution of the heritors for the presbytery as co-adjutors of the kirk-session, an arrangement which subsisted till 1845. The kirk-sessions and heritors were, it is true, subject to the supervision of the magistracy, but, unlike the justices in England, the Scotch magistrate had no power to interfere with the ordering of relief; and to this is partly to be attributed the fact that the operation of the poor law in Scotland was never marked by the undue laxity and careless extravagance which, prior to 1834, characterised its administration in England. In this connection also it is to be noted that the general assessment sanctioned by the act of 1579 was not absolutely compulsory, as in England under the 43rd Elizabeth, but only compulsory at the option of the local authorities. Each parish was responsible for the support of its own poor. But down to middle of the 18th century the method of assessment was rarely adopted, the poor being supported out of the contributions at the parish kirk. But with the break-up of feudalism and the clan system, and the advent of the modern industrial *régime*, came a rapid increase in the claimants for relief; while the equally rapid growth of dissent from the Established Church seriously curtailed the amount of the available funds. Under the kirk-sessions and heritors, however, the stern teaching of the Calvinistic church dominated the administration of the law. A legal assessment was avoided where possible, on the ground that it tended to sap the foundations of self-reliance and thus to encourage pauperism. This was the position of Dr. CHALMERS. Still the commission of inquiry appointed in 1843 found that the relief given was in general, but more especially in the Highlands, quite insufficient, that the amount was determined not by the necessities of the pauper but by the amount of the voluntary contributions, and that steadily, if slowly and with misgiving, the authorities, especially in the larger towns, were being driven to the adoption of the legal assessment. Under the act of 1845, in all parishes where it was resolved to raise the necessary funds by assessment, the administration of the law passed to a body, called the parochial board, elected by the ratepayers, the burgh magistrates, and the kirk-session. A central authority called the Board of Supervision was created to secure greater uniformity in the administration of the law, and to protect the interests of the pauper against the too extreme parsimony of the local boards. The latter were directed to appoint as clerk, relieving officer, and sole executive of the board, inspectors of the poor, dismissible only by the Board of Supervision. The pauper was at the same time granted a right, said to have been much abused, of appeal to the sheriff against a refusal of relief. Under the Local Government Scotland Act 1894, the board of supervision was superseded by the Local Govern-

ment Board for Scotland, while the powers and duties of the parochial boards were taken over (May 1895) by the newly created parish councils. With the advent of the new *régime* in 1845 the transition to the system of legal assessment was greatly accelerated. In 1845, 230 parishes raised the funds by assessment, 650 by voluntary contributions; and within ten years the numbers had become 700 and 183 respectively. In 1896 out of 877 parishes or combinations all save 24 had adopted assessment. With regard to the distribution of the burden the principle of the Scotch poor law has always been that each should contribute according to his ability—his "means and substance." There are various modes of approximating to this, but the only one now legal is that by which one half of the assessment is imposed on the owners and the other half on the occupiers of real property, rateably according to the net annual value of their heritages. Of the 853 assessed parishes only 162 at present (1896) avail themselves of the power of classification of occupants granted by § 36 of the act of 1845.

In dealing with the aged and impotent poor, the prevailing method in Scotland has always been that of out-door relief. Under the sway of the kirk-sessions and heritors this took various shapes, such as money, victuals, or a licepse to beg, according to the state of the voluntary funds. Only in a few of the larger towns were there poorhouses for the reception of the aged and helpless. By the act of 1845, however, facilities were given for the erection of poorhouses on the English model; and in 1896 there were 66 such poorhouses representing parishes with an aggregate population of 3,933,841, leaving only parishes with a population 91,806 still unprovided for. The result of their application as a test of destitution is seen in the steady decrease in pauperism. For some years after 1845 there was a marked increase in the number of the registered poor and their dependants, but this was largely the result of the changed conditions of relief and not of a real increase in pauperism. Taking the fifty years 1847-96, while the population has increased from 2,781,000 to 4,170,000, the number of paupers and their dependants has decreased from 106,000 to 98,000. For the first twenty years of that period the ratio per cent of paupers to population remained about 3·8, and for the last twenty years the average was 2·5, and in 1896 it stood at 2·3. When, moreover, allowance is made for the rapid increase of the lunatic poor, the falling-off in the numbers of the ordinary poor is seen to be still more pronounced. Taking the ordinary poor, we find that in 1877 there were 8046 "indoor" to 85,334 "outdoor" paupers. In 1896 the former had increased to 9569 while the latter had fallen to 76,494. Pauper children are as far as possible boarded out in the rural districts, and this feature of the Scotch system is generally admitted to be one of its best.

[Nicholls, *History of the Scotch Poor Law*, London, 1856.—R. P. Lamond, *The Scottish Poor Laws*, 2nd ed., Glasgow, 1892.—*Annual Reports* of the Board of Supervision, 1846-95, and of the Local Government Board for Scotland, 1896 onwards.]

A. B. C.

POOR RATES. See RATE, INCIDENCE OF.

POOR RELIEF AMONG THE JEWS OF ENGLAND.

I. General, p. 160; II. Historical, p. 160; III. Institutions, p. 161.

I. *General.*—The relief of the Jewish poor in England is, and always has been, almost entirely carried on by the Jewish community. This state of things is not due to the fact that any legal disability prevents, or ever prevented, English Jews from availing themselves of relief under the poor law, but is explained mainly by three causes: (*a*) the unwillingness of poor Jews to take refuge in any workhouses except those few in which special arrangements are made to enable them to observe the complicated dietary regulations prescribed by their religion; (*b*) the natural charitableness of Jews towards the poorer members of their faith; (*c*) the desire of the Jewish community to protect itself against misconception by preventing poor Jews from becoming chargeable to the poor rate. Sir Julian Goldsmid, a leading member of the Jewish community, said in the House of Commons on the 11th of February 1893, "By means of the Jewish Board of Guardians we Jews in this country have endeavoured as far as possible to relieve our Christian fellow-countrymen from payments on our behalf" (Hansard's *Parliamentary Debates* for 1893, viii. 1199).

II. *Historical.*—Though Jews have lived in England since the Restoration, and have always regarded it as their duty to relieve the poorer members of their community, the history of their more important charitable institutions scarcely goes back beyond the beginning of the 19th century. This is due to the numerous divisions which existed within the community throughout the 18th and more than a half of the 19th century, and which have not yet entirely disappeared. The first Jewish settlers in England in the 17th century were men who, though coming mostly from Holland, were of Spanish or Portuguese descent. They founded a synagogue in Bevis Marks, London, and several charitable institutions, which, though doubtless sufficient at first for the wants of their poor, were on a small scale. Among the institutions were a charity school for children of the congregation (1664), an orphan school for boys (1703), and for girls (1730), societies for giving dowries to portionless girls (1724), and for apprenticing boys (1749), a hospital for the sick and aged (1747), and a society for distributing food to the poor (1778). But the Spanish and Portuguese Jews were, in the latter half of the 18th century, outnumbered by the German and Polish Jews, who, continually recruited by immigrants from Germany, Poland, Russia, and Holland, founded three

synagogues in London in the 18th century—the Duke's Place Synagogue in 1722, the Hamburg or Hambro, Synagogue in 1736, and the New Synagogue in 1760. Each of these synagogues was a separate organisation. Each devoted considerable funds to the relief of its own impoverished members, though even this work was somewhat irregularly performed owing to the fact that the synagogue revenue was to a great extent made up of the voluntary offerings of members, and was therefore somewhat fluctuating. But, besides the members of the synagogues, there was always a large class of poor persons, mostly foreigners, who, though regarded as belonging to the German and Polish portion of the community, had never been in a position to contribute towards the funds of a synagogue, and had therefore never acquired the privileges of membership. There was no permanent arrangement among the three synagogues for the relief of this class of the unattached poor until the foundation of the Jewish Board of Guardians (described further on) in 1859. Sometimes, indeed, it was agreed between the three "German" synagogues as a temporary expedient that, out of every four unattached Jews seeking relief, two should be dealt with by the Great Synagogue, the largest of the three, one by the New, and one by the Hambro. But even this arrangement was not adhered to for long, and a competent authority describes how, at another period, "the strange poor, to complete the given shilling, had to call first at the Great Synagogue for the first moiety of sixpence, and to the other two city synagogues for the two remaining moieties of threepence severally."

Another good authority, writing in 1801, says that "the synagogue administration, with respect to the poor's aid, is . . . very inadequate as to funds, and ill-directed as to manner." The synagogue funds, however, were largely supplemented by private charity.

The first effort to introduce unity and system into Jewish poor relief was made in 1801, when a proposal was brought before the government of the day by Abraham Goldsmid, the leader of the German and Polish congregation, for the constitution, by parliamentary authority, of a board which should consist of representatives appointed by the various synagogues, and should have power to assess the synagogues and individual Jews for contributions, and to devote the money raised by this means and by voluntary donations to the establishment of a school, a hospital, a workhouse, and an asylum for the aged. The scheme met with opposition and was dropped. But the same impulse that gave rise to it led to the foundation of the "Jews' Hospital for the Reception of Aged Poor, and Educating to useful Industry Youth of both Sexes," opened at Mile End in 1807. The establishment of the Jews' Free School in 1817, of the Jews' Orphan Asylum in 1831, of the Jews' Infant School in 1840, and of additional homes for old men and widows in 1840 and 1843, did much to relieve the condition of the Jewish poor. But the synagogues remained apart; and, as has been said above, there was no organisation to deal with the "unattached poor" until 1859. Numerous as are the charitable institutions of the English Jews at the present day, the history of poor relief among the English Jews during the last thirty-eight years is practically the history of the Jewish Board of Guardians.

III. *Institutions.*—The chief charitable institutions in London at the present time are as follows:—(*a*) *The Jewish Board of Guardians*, established in 1859 by the three German synagogues to provide one general authority for the distribution of charitable relief, partly in addition to, and partly in supersession of, the relief dispensed by the synagogue authorities themselves and by private donors. The Board was at first intended to deal chiefly with "unattached" Jews, *i.e.* those who were not specially attached to, and relieved by, any synagogue; but this limitation of its work was removed within a few months of its foundation. The board now consists of fifty members, viz. twenty-seven elected by the subscribers, twenty-one elected by the members of the London synagogues, and the two overseers of the poor appointed by the Council of the United Synagogue. It carries on its work through the relief department, which distributes money, nourishments, and medical and surgical help; the loan department; the emigration department; the industrial department, which apprentices poor Jewish boys and girls to employers who undertake to allow them to observe the Jewish Sabbath and festivals; the investigating department, which deals with permanent allowances; the sanitary department, which endeavours to secure the removal of sanitary defects in the habitations of persons assisted by the board; and the work rooms, which provide instruction and employment in sewing to destitute Jewish women and girls. The departments are mainly administered by members of the board, with the assistance of a staff of paid officers, of a visiting committee consisting of about eighty honorary visitors, and of about sixty honorary "visiting guardians of apprentices."

The income of the Board for 1896-97 was about £38,000, made up as follows:—subscriptions, donations, and legacies, £26,600; grants from synagogues, £1400; income from investments, trust funds, etc., £2600; repayment of loans by borrowers, £4300; repayment of premia by apprentices, £1500; contributions by emigrants towards the expense of emigration, £1450; relief refunded, £150. The

expenditure was about £30,000, viz. gifts of money or kind, temporary allowances, medical relief, etc., £12,000; permanent allowances, £4300; emigration, £3500; loans, £5000; apprenticeship, £2000; work rooms, £400; sanitary department, £100; subventions, £100; management, £2500. (*b*) The Jews' Hospital and Orphan Asylum, formed by the amalgamation in 1876 of the Jews' Hospital, founded in 1807, and the Jews' Orphan Asylum founded in 1831. The institution maintains, educates, and apprentices about 270 orphan children, and grants pensions to eight aged persons. Its income in 1896 was £7380. (*c*) Home for Aged Jews, formed by the amalgamation of three institutions founded in 1840, 1843, and 1871. Income in 1896, £2100. (*d*) Board of Guardians for the relief of the poor of the Spanish and Portuguese Jews' congregation, founded 1837. Income for 1896, £2700. (*e*) Society for distributing bread, meat, and coals to the Jewish poor, founded 1780. Income 1895-96, £2600. (*f*) Soup kitchen for the Jewish poor, founded 1858. Income in 1896, £2000. (*g*) The Russo-Jewish committee, founded in 1881, to administer the fund raised in that year by general subscription for the relief of immigrants from Russia who have been compelled by persecution to leave their native country.

There are, besides, numerous smaller institutions, and the amount annually expended by specifically Jewish charitable institutions in London is probably about £70,000. There are, in addition, Jewish boards of guardians in Manchester and Liverpool, each with an income of about £2000, and one in Birmingham with an income of about £1000.

[Annual reports of the institutions referred to, especially the first report of the Jewish Board of Guardians, 1859.—J. Picciotto, *Sketches of Anglo-Jewish History*, 1875.—J. Van Oven, *Letters on the Present State of the Jewish Poor in the Metropolis*, 1802.—L. Alexander, *Answer to Mr. Van Oven's Letters*, 1802.—A Jew (H. Faudel), *Suggestions to the Jews for Improvement in reference to their Charities, etc.*, 1844.—J. Jacobs, *The Jewish Year-Book*, 1896 and 1897; *Jewish Chronicle* for 26th March, 7th May, and 18th June 1897.—J. Jacobs and L. Wolf, *Bibliotheca Anglo-Judaica; a Bibliographical Guide to Anglo-Jewish History*, 1888.—*Laws of Hebrews relating to the Poor and the Stranger*. Trans. from the Hebrew of Maimonides, London, 1838.]

B. L. A.

POPULATION: ECONOMIC THEORY. By the population of a country is meant the *numbers* of its inhabitants, and, whatever account is taken of differences of quality, it is of quality in close relation to numbers. Like all other statistics, the numerical data of population require an interpreter, an observer able not only to count, but to collate and reason. He must, for example, distinguish between a change in the method of investigation and a change in the facts investigated—as where there is a growing accuracy of registration or enumeration, and the real increase in numbers is less great than the recorded.

Taken by itself, a single census, giving the numbers of human beings found alive in the British Isles on a particular day, say 5th April 1891, tells us nothing of one important feature of population—its perpetual change. It would give us the statical view, which might be also the qualitative or demographical, of the distribution of ages and sexes, and of ranks and occupations. But a second census enabling us to compare the numbers at two periods, and thereby estimate the movement between them, gives more than twice the illumination of one. To be used fruitfully the statistics of population must be comparative.

Further, the data must be used with the cautiousness appropriate to their imperfections. It is given to few countries, as to few individuals, to count exactly; the questions of a census must be few, direct, and simple, or the intentional, as well as the unintentional, errors will be multiplied. The greater the numbers of a people, the more true will averages be, and the more truly may general conclusions be drawn (see STATISTICS). But, on the other hand, verification becomes more difficult; and the statistician must consider how far he may justly assume that the inaccuracies are a constant quantity, or cancel each other on the whole, or be inappreciably few in view of the largeness of the area.

Taking a nation like our own, which has at its command the chief, if not the whole, of the scientific apparatus necessary for sound statistics of population, we find among the institutions established largely if not wholly for the ascertaining of facts in relation to this subject the following:—

(1) The decennial census (see CENSUS), giving the numbers of the people as enumerated on a particular day.

(2) The annual returns of the registrars-general for England, Scotland, and Ireland, giving the numbers of births, marriages, and deaths.[1]

(3) The returns (to the board of trade) on emigration and immigration.

The figures yielded by all three may be used to check each other; and the usefulness of the check will be evident when it is observed that the numbers of the people, as estimated by 2, for the year of the census, are never found to coincide exactly with the enumerated numbers of the census itself. The divergence is, however, so small in comparison with the great numbers enumerated (in 1891, 288,000 out of

[1] For England we have (*a*) annual reports; (*b*) decennial supplements thereunto; (*c*) quarterly returns; (*d*) weekly returns; (*e*) annual summaries.

29,000,000—hardly 1 per cent), that we evidently possess accurate enough knowledge on this subject to draw general conclusions as to general tendencies. The use made of these figures by statesmen, whether for electoral or financial purposes, may here be neglected. The special difficulties of the actual enumeration are considered elsewhere (see CENSUS). The numbers of the nations of the world are now known with a fair approximation to accuracy. The strictly economic aspects of the subject are an ample theme by themselves.

Political economy is occupied, in the first instance, with the results that would flow, in human societies, from the pursuit of material wealth. But the bare abstraction, desire of wealth, has been so unfruitful, that all economists have been quick to add to it a group of rival elementary desires, such as desire for leisure and desire for marriage. The desire for marriage is introduced "for the sake of practical utility" (J. S. MILL, *Unsettled Questions*, p. 140). The effect is to deprive political economy of a great part of its abstractness, yet the inclusion is inevitable; if we exclude the desire of marriage, and all reference to increase or decrease of numbers, we go far to treat society as inanimate, not to say non-human. Thus at the rise of political economy, both in England and in France, the study included the subject of population, and therewith of statistics. Political arithmetic, one of the precursors of economics in England, was mainly an endeavour after statistics of population; and the spread of life insurance and annuities, at the end of the 17th century, helped to swell the numbers of those who were studying the facts. The writers of the mercantile school (see MERCANTILE SYSTEM) had considered economic policy rather than economic principles. But the PHYSIOCRATS and the Scottish philosophers were forming economic principles, however tentatively. The absence of a census served to make the discussions more indecisive, but possibly also to make the sifting of principles more complete. From very want of facts men were driven to principles in order to reach the facts deductively. The academical debate between the champions of the ancients and the champions of the moderns led to D. HUME's *Essay on the Populousness of Ancient Nations*, 1752. Hume at once dismisses the notion that the world was in its prime in antiquity and is now old in modern times. Men are much the same now as then, and we cannot tell when the prime of the world gives place to its old age. Against the special diseases of our own age we have to set the special troubles of ancient society. "The equality of property among the ancients, liberty, and the small divisions of their states, were indeed favourable to the propagation of mankind. But their wars were more bloody and destructive, their governments more factious and unsettled, commerce and manufactures more feeble and languishing, and the general police more loose and irregular. These latter disadvantages seem to form a sufficient counterbalance to the former advantages, and rather favour the opposite opinion to that which commonly prevails with regard to this subject" (*Essays*, vol. i. pp. 468-469, 4to ed. 1768). There can be no doubt what was Hume's own view,[1] though when challenged by Dr. Robert WALLACE, he took refuge in scepticism. His arguments involve a close scrutiny of the classical authorities; but there shines through the whole the *a priori* principle that the ancient world could not have been more populous than the modern, and therefore it was not. It could not have been, mainly because "wherever there are most happiness and virtue and the wisest institutions there will also be most people" (*ib.* 427). Were all difficulties removed, almost every one would marry; "and the human species would more than double every generation." How fast do men multiply in a new colony, and how quickly are the gaps filled up after a plague! "Where there is room for more people they will always arise" (*ib.*).

The prevailing tone amongst political writers had been that population could not be made to grow fast enough. BOTERO, in 1589, *Delle cause della grandezza delle città*, had no doubt pointed out that the *virtus generativa* of men was the same as it always was, but the *virtus nutritiva* became more and more hampered. But Botero was soon forgotten, and the same views were only in the 18th century rising again into the consciousness of his countrymen (especially GENOVESI and ORTES, the former not altogether clear). FRANKLIN, writing in 1751, *Observations concerning the Increase of Mankind*, remarked that there is no bound to the increase of living things, whether plants or animals, provided they have room and food and no rivals. The growth of the American colonies was exciting general attention in Europe. These colonies had arisen from economic as well as political causes; and they were destined to be as instructive economically as politically.

Besides all this, a debate was waged through a great part of the 18th century that came far nearer home than the antiquarian controversy of Hume and Wallace; it was debated whether the numbers of the English people were decreasing, and, if so, whether the large towns were the cause of the decrease. Richard PRICE, the promulgator of the *Northampton Table of Mortality*, maintained the affirmative in both cases

[1] See Gibbon, *Decline and Fall*, ch. lx. (pub. 1776, in the year of Hume's death). As to the superior populousness of the north in ancient times, says Gibbon, "a more serious inquiry into the causes of population seems to have convinced modern philosophers of the falsehood and indeed the impossibility of the supposition. To the names of Mariana and of Machiavel we can oppose the equal names of Robertson and Hume."

against J. HOWLETT, W. WALES, and Arthur YOUNG. The discussions on the effects of enclosures, and of large and small farms, were largely affected by the views of the various disputants on the major question of DEPOPULATION. The *Essay* of MALTHUS (1798) soon silenced the followers of Price, though it was unconnected both in origin and in aim with their controversy.

It has more than once happened in the history of economic study, that—to the eye of the later historian—the times seem fully ripe for the enunciation of a particular doctrine, when yet it is either not proclaimed or else when proclaimed excites no attention. The dependence of population on subsistence, and the tendency of population to overtake, if not to exceed, subsistence, had been stated by QUESNAY when he wrote: *La propagation n'a de bornes que celles de la subsistance, et elle tend toujours à passer au delà; partout il y a des hommes dans l'indigence.* (Quoted by Oncken in art. Quesnay, *Handw. d. Staatswissensch.* p. 329, without a reference.)[1] Quesnay converted the Marquis MIRABEAU to this view (Higgs, *Physiocrats*, 1897, p. 23). The doctrine of TURGOT as to the tendency of wages to a minimum implied a similar view of the tendency of population to a maximum. The said tendency of population had been observed by Dr. Robert WALLACE (*q.v.*) to have vital importance for projects of social reform. Adam SMITH, finally, had remarked that "the demand for men necessarily regulates the production of men; quickens it when it goes on too slowly, and stops it when it advances too far" (*W. of N.*, I. viii.). "Every species of animals naturally multiplies in proportion to the means of their subsistence, and no species can ever multiply beyond it" (*ib.*). He had noted also the rapid increase of the American colonies and the causes of it. The population, he says (1776), doubles there in twenty or twenty-five years, not because of immigration, but by "the great multiplication of the species" (*W. of N.*, I. viii.). But when Malthus, till then completely unknown, published his *Essay on Population* in 1798, he made as great an impression as if nobody till then had written on population. The two great schools of political economy, the French and the English, adopted his doctrine with little or no modification.

The chief arguments of the *Essay* have been fully presented elsewhere (see art. MALTHUS). They owed their impressiveness (1) to the attention then excited by GODWIN'S *Political Justice* to which the *Essay* was a reply; (2) to the directness of their bearing on current English economic policy, especially in the matter of poor laws; (3) among economists, to the skill with which the theory of population was incorporated with the general doctrines of the economic system, and brought into connection with all the leading questions in economics, then as now under discussion.

Assuming that food is necessary and the desire for marriage ineradicable, Malthus contends that not only is the increase of population limited by the increase of food, but wherever there is increase of food there will be a corresponding increase of population. Yet the increase of the food compared with the increase of population is slow, laborious, and difficult. "Population when unchecked increases in a geometrical ratio; subsistence increases only in an arithmetical." (See ARITHMETRICAL RATIO; GEOMETRICAL RATIO.) Malthus in short begins abstractly: suppose all impediments to population removed, and all impediments to production of food left standing, then the one will increase geometrically, the other arithmetically.

Up to this point all seems simple, and all had been said before, even as to the ratios by Voltaire; but Malthus showed in detail the modes by which the tendency of population to increase was repressed, so that the actual numbers were brought within the limits of the actual food. Plants and animals reproduce themselves, and the new offspring, finding no food, dies. In the case of men, this only happens with the most savage, most nearly akin to the brutes. With the others the repression is effected in various indirect ways, under various disguises. The checks are "vice and misery," and "the fear of them." They are preventive as well as positive, preventing births as well as causing deaths. Malthus in 1803 pleaded guilty to exaggeration; and admitted that among the preventive checks was moral restraint, which was certainly neither vice nor in the ordinary sense misery, though by his own definition it might be the fear of it. If the 1st edition of the *Essay* gave a picture of the struggle for room and food in its gloomiest aspects, the 2nd brought out more fully how among civilised peoples it is a struggle for the attainment or more often for the retention of a standard of living, in which, in proportion to the degree of civilisation, the necessaries of life go far beyond the bare physical requisites of mere living. Yet the average man will marry and will need to struggle to preserve the accustomed necessaries. The pressure of the principle of population will make itself felt as a stimulus to his labour and inventiveness. Felt it will always be. The pressure of population on the means of providing necessaries will continue as long as the race continues.[1]

Of the conclusions fairly deducible from the arguments of the *Essay*, the following are the most important to the economist and the statesman.

1. The principle of population is a chief,

[1] See also notice below (p. 169), of works of l'Abbé Mann.

[1] Mr. Lyttleton (see below) is probably right in contending that there is no tendency in the case of human beings to increase *beyond* the food, unless there have been artificial encouragements. But there might still be a tendency to increase *up to* the food.

perhaps the chief cause of poverty, and its effects cannot be removed though they may be aggravated by human institutions. It is also the chief cause of low wages.

2. The only sound encouragement of population is the encouragement of industry, especially agriculture.

3. Very fertile lands are comparatively scarce, and an increasing population compels the cultivation of the less fertile. Hence arises the phenomenon of rent.

4. The pressure of population is a stimulus to industry. Population, unchecked by prudence or necessity, increases geometrically; production of necessaries, unaided by invention, increases arithmetically.

5. Relief of the poor by poor rates (see POOR LAW) or CHARITY (*q.v.*) does not by itself add to the food, and therefore only raises the price of the existing supply. Emigration relieves the pressure for the time, but, if there is no greater prudence than before, the gaps are soon filled, and the old pressure reappears.

6. The difficulty is not remote but present, for a population is adequate[1] or excessive in relation to the actual not the possible food. Nothing but greater prudence of the several citizens will remove it. The burden of responsibility lies on the individual, not on the state.

7. An increase of population is both safe and desirable if caused by a low death-rate; it is much less so if caused by a high birth-rate. There is in the former case an economy; in the latter, if without the former, there is a waste of lives. (See *Essay* (later ed.), bk. ii. viii., *On the Checks to Population in England.*)

8. A high standard of living is as desirable for the whole people as for the middle and upper classes, and it is best preserved by late marriages.

These are only a few deductions that might be made from the *Essay;* and, as they are not all equally evident, they were often attacked in detail by critics unable or disinclined to controvert the first principles. Much too was built upon the *Essay* that has needed reconstruction or demolition; the theory of rent has submitted to the one, and the theory of a wages fund has not escaped the other. We are now more careful than Malthus to point out that a change in distribution of wealth may convert an excessive population into a well-fed population, provided that production is adapted to the change. But the first principles of the *Essay* suffered hardly at all from the earliest critics, and have been little amended by the latest.[2]

Something was felt to depend on a question of fact. America was taken by Malthus as the best example of a near approach to the conditions under which the highest theoretically possible increase would be realised; it was important to be sure therefore that the doubling of the American population in twenty-five years had been due to natural increase, and not simply to immigration from the Old World. Francis PLACE (*Illustrations and Proofs of the Principle of Population*, 1822) was able to show this with great effect from Dr. Adam Seybert's *Statistical Annals, 1789-1818*, of the United States (publ. 1818), and from the English records of ships and passengers cleared for the United States, under the Act 43 Geo. III. c. 56. The years when governments were restless from wars and rumours of wars were precisely those when emigration and immigration would be closely watched, and the records would be most likely to be full and accurate; and the records pointed to an emigration of 10,000 per annum at the utmost (Place, pp. 68, 69), while the population of the States increased from 4 millions in 1790 to 7½ in 1810 (*ib.* 46). The census of 1820, not published at the time PLACE wrote, made the population for that year 9½ millions. In other words the increase had been at the rate of about 225,000 per annum, of which emigration accounts for less than $\frac{1}{10}$ part (cp. *Edin. Rev.*, Jan. 1820, p. 70; and July 1821, p. 365 *seq.*). The free population, as distinguished from the slave, increased at a much faster rate than this (see Macaulay's article on Sadler, *Edin. Rev.*, July 1830, pp. 318, 319).

The illustration of Malthus was thus substantially justified. Since then the United States have become more and more like Europe in the filling up of room, if not in the supplying of food, and we can no longer point to the States as a much nearer approach to geometrical increase than can be found elsewhere.

An interesting attempt to modify the Malthusian doctrine by American experience was made by A. H. EVERETT (*New Ideas on Population*, 1823). Everett considers that an increase of population is not likely to take place without bringing with it an increased efficiency in the production of food, the new men being new workers, and in civilised countries becoming in each generation more and not less skilful owing to their numbers and the resulting division of labour. A careful statement of the Malthusian doctrine will show it to be quite consistent with this "new idea." Malthus himself needed to explain to SENIOR that to say population had a tendency to increase did not mean that it actually did increase,—that on the other hand the actual progress of humanity in invention and industry was not due to any "tendency" in the same sense of the word, such progress being not spontaneous, but the result of vigilance and effort (see *Two*

[1] 'Giusta populazione,' Genovesi, *Lezioni di economia civile*, pt. 1. ch. v. p. 122 (in the *Scrittori Classici di Economia politica*, vol. vii. 1803).

[2] The mathematical formula for the growth of population was restated by Quetelet, *Physique Sociale* (1835). Another restatement has been recently put forward by Professor Karl Pearson, *Stat. Journal*, June 1896. Compare the formula in Malthus, *Essay*, ii. ix. footnote.

Lectures on Population by W. N. Senior, Prof. of Pol. Ec., Oxford, with a Correspondence between the Author and the Rev. T. R. Malthus, London, 1829). In short, if man relaxes his watch over his appetites, his numbers will increase to the level of the food; but to increase the food he must use his reason. Appetite unwatched by reason will bring men to poverty; this is perhaps the most succinct statement of the Malthusian "law" of population.

Malthus himself speaks oftener of a "tendency" and a "principle" than of a "law." Sadler on the contrary wrote a book entitled The *Law of Population* (1830), in which he tried to prove that the prolificness of human beings, otherwise similarly circumstanced, varies inversely as their numbers (vol. ii. p. 352), meaning that where the population is dense the births are few, and where it is thin they are many. On the best interpretation, this could only mean that population increased fastest where there was most room for it. Obviously the food is as important as the room, but if we add food then Sadler's principle is that of Malthus. Doubleday, *Law of Population* (1846), suggested that the increase is inversely proportional to the food. This is only true in the sense that excess and luxury will in some cases injure reproduction. In any other sense the contention is a paradox, and is so treated by Darwin and other leading biologists.[1] Darwin traces his own theory directly to Malthus: "It is the doctrine of Malthus applied with manifold force to the whole animal and vegetable kingdoms, for in this case there can be no artificial increase of food, and no prudential restraint from marriage. Although some species may be now increasing, more or less rapidly, in numbers, all cannot do so, for the world would not hold them. There is no exception to the rule that every organic being naturally increases at so high a rate that, if not destroyed, the earth would soon be covered by the progeny of a single pair. Even slow-breeding man has doubled in 25 years, and at this rate in less than 1000 years there would literally not be standing room for his progeny" (*Origin of Species*, 1859, ch. iii., cp. Wallace, *Darwinism*, 1889, p. 10).

On this power of increase, and on the fact that the offspring always differs though slightly from the parents, is built the theory of natural selection. In the struggle for existence among organisms that cannot all survive, those will survive which have the peculiarities that give them advantage over others. In Mr. Spencer's phrase the fittest will survive. Without discussion of the additions to Darwinism proposed by recent biologists, it may be said that the theory of natural selection in its broad sense is now an accepted doctrine, and it is applied to human beings in a state of individual savagery as well as, with reservations, to nations of men in relation to each other even when civilised. The individual citizens of nations, however, are to a large extent withdrawn from the crude form of natural selection. Modern states endeavour so far as possible to prevent the trampling out of the weak, but not perhaps so much by State law as by philanthropic agencies; and they do not even forbid the physically weak and sickly to propagate.[1] Hence, though the doctrine of population is in abstract theory only a particular case of a general biological law, the form which that law assumes in the case of man is still recognized as in many ways exceptional.

The protest of W. R. GREG (*Rocks Ahead*, 1874, and *Enigmas of Life*, 1872) and others against the degeneration of type which might seem to result from interference with the struggle for existence, is made more intelligible if we adopt the theory of Mr. Herbert Spencer on "individuation" and reproduction. This theory is that "individuation," including the concentrative intellectual force of a man, can only grow at the expense of the reproductive force.

H. C. CAREY (*Principles of Social Science*, 1858-60) had taught that "the power to maintain life and that of procreation antagonise each other, that antagonism tending perpetually towards the establishment of an equilibrium," animals with large brains being less prolific than animals with small. PROUDHON, *Contrad. Econ.*, had found consolation in a similar equilibrium. But Spencer states the view most carefully: "The forces preservative of race are two, ability in each member of the race to preserve itself and ability to produce other members, power to maintain individual life and power to generate the species. These must vary inversely. When from lowness of organisation the ability to contend with external dangers is small, there must be great fertility to compensate for the consequent mortality; otherwise the race must die out. When, on the contrary, high endowments give much capacity of self-preservation, a correspondingly low degree of fertility is requisite. Given the dangers to be met with as a constant quantity, then, as the ability of any species to meet them must be a constant quantity too, and as this is made up of the two factors, power to maintain individual life and power to multiply, these cannot do other than vary inversely; one must increase as the other decreases,"—*Biology*, vol. ii. pt. vi., "Laws of Multiplication," p. 401, ed. 1867. What is gained for reproduction is lost to nutrition.[2]

[1] See above (DOUBLEDAY), and compare Dr. C. Loudon's *Solution du Problème de la Population et de la Subsistance* (Paris, 1842), pp. 301-318. His "solution" is "l'allaitement de trois ans."

[1] The pax Britannica in India has been purchased at the expense of over-population.

[2] Carpenter, in his *Comparative Physiology* (3rd ed. 1851), is quoted by Spencer as writing to the same effect. Spencer's view was stated by himself in the *Westminster Review*, April 1852.

The growth of the one set of powers is at the expense of the other, most manifestly so in the higher organisms, such as man, where the special organs of individuation, as opposed to genesis, draw to themselves a great amount of the total force in the animal (*ib.* 408, 409).

It must be added that "the inverse variation of individuation and genesis is but approximate. Recognising the truth that every increment of evolution, which is appropriate to the circumstances of an organism, brings an advantage somewhat in excess of its cost, we see the general law, as more strictly stated, to be that genesis decreases not quite so fast as individuation increases" (*ib.* 477). "Every type that is best adapted to its conditions, which on the average means every higher type, has a rate of multiplication that insures a tendency to predominate" (478). The pressure of population in man's case is undoubted, and it is "perennial" (498). It causes "a never-ceasing requirement for skill, intelligence, and self-control; involves therefore a constant exercise of these and gradual growth of them" (499). Excess of fertility is the cause of man's evolution;[1] and the "evolution itself necessitates a decline in his fertility" (501). The getting of food will become harder and harder, and the increased labour will cause a greater and greater diminution of reproductive power (503).

There would thus be an eventual harmony; as with the spear of Achilles, the cause of the mischief would be also the cure of it (cp. Dante, *Inferno*, xxxi. 4).

But it may be doubted whether Mr. Spencer's admissions do not weaken his main argument. In the first place he allows that the struggle for existence meets with interference in the case of men, and has not its perfect work —*Biology*, ii. 487; cp. *Study of Sociology*, ch. xiv. pp. 340 *seq.*, 14th ed. 1888. If domestic animals, such as dogs, are spoiled by their protected state for many purposes of scientific inference, much more so are men in society, and much more so will they become. The dependence of sociology on biology asserted alike by COMTE and Mr. Spencer, is evidently not close enough to enable us to use biological generalisations as necessarily true of human societies, at least in their civilised form. The institutions of modern civilised societies are adapted to preserving the weak and even encouraging their multiplication (see *Study of Sociol.*, *loc. cit.* p. 344).

In the second place Mr. Spencer admits that it is much more easy to support his view in the case of women than in the case of men (*Biol.*, *loc. cit.*, *Study of Sociol.*, p. 379). Now as civilisation preserves the weak of both sexes, the result would still be that the biologically unfit would survive. No one is better aware than Mr. Spencer that intellectual growth is not necessarily moral; and he would probably allow now, whatever he might have done in 1852, that, after all, a conscious "moral restraint" must intervene if a stable equilibrium is to be produced between population and the means of living.

In the third place it is stated too absolutely that in the long run, owing to the slackened multiplication due to intellectual strain, there will be an adequate instead of an excessive population, and the strain itself will be relaxed. It might obviously be retorted, as it is by Prof. John, *die jüngste Entwickelung der Bevölkerungstheorie*, 1887, that the multiplication would on Spencer's own principles at once begin afresh, unless, we may add, there had been such a development of morality as to make men keep up from principle the conduct at first enforced by the discipline of necessity.

In any case it seems difficult to avoid the conclusion that there is still scope for the preventive check of Malthus, though not necessarily in the form he preferred; and the severe labour of which Mr. Spencer speaks is not far removed from that class of checks which was called too bluntly by Malthus "misery." Without adopting Spencer's view as an adequate solution of the whole difficulty, we may allow that it concerns a *vera causa*. The higher education of women and their more active part in the intellectual battles of life will, *cæteris paribus*, lead to lessened multiplication; and this in two ways at least: (1) By lessening the dependence of women it will, on the whole, lessen the number of marriages; and (2) for physiological reasons it will lessen the birth rate. Spencer explains the low birth-rate of France mainly by the hard work thrown on French women;[1] but if it be hard *physical* work this would rather involve a high death-rate of infants than a low birth-rate; it is from hard mental work that the latter would more probably come. The stationary state of the French population is admittedly due mainly to deliberate prevention. *A priori* this prevention might be expected to result in a degeneration of type; but there are no conclusive proofs of such an effect at present. When English politicians are providing against the possible opponents of the British nation on the seas or in the battle-field, France is still in the first rank of them.[2]

Incidentally it is a strong confirmation of the Malthusian doctrine that the French settlers in Canada (according to M. de Molinari's article in the *Journal des Économistes*, December 1886, translated in *Statist. Journal*, March 1887) have

[1] Mr. Spencer frankly acknowledges that, though he came near to Darwin's idea, he did not actually reach it (*ib.* 500 n.).

[1] Compare his *Sociology*, vol. iii. (1897), p. 361.

[2] M. de Molinari (see *infra*) believes there is physical degeneracy, proves it by the rejections for the army, and ascribes it largely to the forced service itself!

increased from 60,000 to 2,000,000 in a century and a quarter, while the population of France, but for immigration, is stationary. M. de Molinari (*loc. cit.*) contends that the economic advantages of the present attitude of the mother country considerably outweigh the drawbacks. The low death-rate is to be set against the low birth-rate; the adult population is proportionally a much greater part of the whole than elsewhere, and it is the adult members of a nation that must defend it.[1] On the other hand,—and this argument is supported by C. de Varigny, *Revue des Deux Mondes*, 1st December 1890, *La théorie du nombre en matière de population*,—the sinews of war are in a sense not men but money; great numbers without wealth are less strong than smaller numbers well-furnished.[2] Now France is wealthy; "she exports more capital than she imports" (Molinari, *loc. cit.*); and her immigrants provide her with servants ready made, in place of servants to be reared by herself at great cost.

It will be asked if there is not a danger in the adoption of a policy of restriction, whether (*a*) by a class within one nation, or (*b*) by one nation within a large group, in face of competitors who increase as before. This objection recalls the old arguments against the adoption of free trade by a single nation in the face of protectionist rivals. The answer at least is similar; the new policy is adopted because it is a source of strength. The effect of the example of the middle classes has in recent years become appreciable even in this country. The birth-rate has become lower among the working classes (see Reports of Registrar for 1895, London, Lancashire, Durham), and there are reasons for thinking that improved expectation of life, and lessened birth-rate, have exerted a mutual influence. Among nations the position of France in the matter of population is only the most striking instance among many; the phenomenon of lessened rate of increase is becoming general among European nations, and is showing itself in the United States of America. The utilitarian argument (see Prof. Sidgwick, *Politics*, pp. 148 *et seq.*, that the total amount of happiness is greatest where there are most units to be happy) may be answered by the remark, that the intensive happiness may be greatest where the units are not the most numerous; 100 very happy may be better than 1000 only slightly so. The contention that it is dangerous for one nation to begin till all nations are ready, proceeds from that class of reformers who would take no decisive action without a universal consensus. Experience seems to show that reforms usually spread from the parts to the whole, and may begin at once and anywhere.

The bearing of the growth of population on the relation of working men to their employers will be discussed elsewhere (WAGES FUND). TRADES UNIONS have in practice shown belief in the principle, that the supply of labour must be kept low in order that its value may be kept high. There may remain a doubt whether the immediate economic disadvantage of large numbers, as likely to underbid each other, is not counterbalanced for the nation by the military advantage of them. But the military advantage depends largely on the financial resources; and, if the military struggle were over and the large numbers had vanquished, the problem that troubled Godwin and Malthus in 1798 would present itself again. Even in the best of all possible societies there is no room for unlimited increase. This has been clearly seen by many of the leading advocates of socialism; and the Malthusian theory of population is only fatal to socialism on the assumption, which is not justified, that all socialists are blind to it.

[*Bibliography* (in addition to the works cited in the text). The subject is discussed more or less fully in almost all English text-books of political economy, most fully in those of J. S. Mill[1] (for the classical doctrine), Professor Marshall (for modern facts in 3rd ed. of *Principles*), and Professor Nicholson (for careful re-statement). In French there is still nothing to surpass *Du Principe de Population* of Joseph GARNIER, 4th ed. 1857. The article "Population" by Garnier and Legoyt in the *Dictionnaire de l'Économie Politique* of 1853 is masterly, and its bibliography is excellent. It may be supplemented for German writings by the *Handwörterbuch der Staatswissenschaften*, art. "Bevölkerungslehre und Bevölkerungspolitik," by Dr. Elster; and for Italian by the *Bibliografia* of Cossa and Bertolini (*Giornale degli Economisti*, 1891-94).

A Reply to the Essay on Population in a series of Letters, Anon. [W. Hazlitt] 1807. The first three letters had appeared in Cobbett's *Polit. Register*. Hazlitt thinks "the extent of population is only limited by the extent of the earth;" "the difficulty is not in making more land maintain more men, but in making the same spot of ground maintain a greater number than it did before" (36, 37). In short, he concedes it only in the case of intensive cultivation and diminishing returns.—James Grahame, *An Inquiry into the Principle of Population, including an exposition of the causes and the advantages of a tendency to exuberance of numbers in society, a defence of Poor Laws*, etc. (Edinburgh, 1816). Answered by Malthus in Appendix to his *Essay*, ed. 1817.—George Ensor, *An Inquiry concerning the Population of Nations, containing a refutation of Mr. Malthus's Essay on Population*, Part I., London, Effingham Wilson, 1818. Ch. vi. brings out the difficulty of estimating population without a census, by hearth money, etc. (cp. pt. 3, ch. vi.). The book is rather a plea for political reforms than

[1] ἄνδρες γὰρ πόλις (Thucyd.) can receive this new interpretation.

[2] Cp. Quesnay, *Maximes*, apud Daire, *Physiocrates*, i. 101-103.

[1] Mill's famous paradox that it is doubtful if machinery has lightened human labour, is expressly founded on the Malthusian theory (see *Pol. Econ.*, bk. iv. ch. vi., on the stationary state).

an economical argument.—*An Enquiry into the Principles of Population, exhibiting a system of regulations for the Poor, designed immediately to lessen and finally to remove the evils which have hitherto pressed upon the Labouring Classes of Society*, Anon., London, 1832. The labourers have put themselves at disadvantage by increasing too fast. But chemistry can make food out of sawdust and dry bones (p. 60), and the real desideratum is a better adjustment of labour. The higher classes must be educated to do more for production, and the labourers should learn to "shape work for themselves, and depend less on the capitalist" (ch. viii.).—Robert Dale Owen, *Moral Physiology, a brief and plain Treatise on the Population Question*, 8th ed., 1832. Perhaps the most temperate of the books written to recommend the Neo-Malthusian view of the subject.—Rev. W. F. Lloyd, Professor of Political Economy, Oxford, *Two Lectures on the Checks to Populations*, Oxford, 1833. Some very acute economic observations.—Travers Twiss, Professor of Political Economy, Oxford, *On certain Tests of a Thriving Population*, London, 1845. A thoughtful and useful statement of general principles both economical and statistical.—Among the best recent books on the subject of population are: Kautsky, *Der Einfluss der Volksvermehrung auf den Fortschritt der Gesellschaft*, 1880.—Lexis, *Bevölkerungs-statistik*, 1875 (for mathematicians), (Compare *Die Theorie der Massenerscheinungen in der menschlichen Gesellschaft*, by the same author, 1877).—Heinrich Soetbeer, *Die Sozialisten und die Malthus'sche Bevölkerungstheorie*, 1886.—Dr. A. Südekum, *Ueber das Malthus'sche Gesetz und das Bevölkerungs-problem der kommunistischen Gesellschaft*, Kiel, 1894.—Vitt. Lebrecht, *Il Malthusismo e i problemi sociali, Saggi critici*, 1893.—Nadaillac, *Affaiblissement de la natalité en France, ses causes et ses conséquences*, 2nd ed., 1886.—G. B. Longstaff, *Studies in Statistics*, 1891.—Professor van der Smissen, *La Population*, 1893 (unnecessarily long).—Professor Levasseur, *La Population Française*, 3 vols., 1889-92.—Dr. J. B. Haycraft, *Darwinism and Race Progress*, 1895.

Among pamphlets and articles may be mentioned—

Dr. W. Ogle, "The Marriage-Rates and Marriage-Ages, with special reference to the Growth of Population," *Statist. Journal*, June 1890 (recommends retardation of marriage;—women should marry five years later than they do now). R. H. Hooker, "Is the Birth-Rate still falling?" *Manchester Stat. Journ.*, January 1898.—F. S. Crum, "The Birth-Rate in Massachusetts" (*Quarterly Journal of Economics*, April 1897).—Castelot, "Théories de la Population en Allemagne (from 16th century), *Journal des Économistes*, 15th May 1895.—Dr. W. Cunningham, British Association, Southport, "On the Statement of the Malthusian Principle," 1882.—A. T. Lyttleton, "The Question of Population," *Economic Review*, April 1891 (one of the best recent English surveys of the whole discussion).—Professor V. John, *Die jüngste Entwickelung der Bevölkerungstheorie*, Internationaler Congress für Hygiene und Demographie, Vienna, 1887.—G. Lagneau, *L'Immigration en France*, 1884.—Father Fortin, "Les derniers renseignements officiels sur les mouvements de la Population en France," *Études Religieuses, Philosophiques, Historiques, et Littéraires*, for March, April, June, August, October 1895.—Father Clarke, "New Malthusianism" (*North American Review*, September 1896).—*Encyclopædia Britannica* (9th ed.), art. "Reproduction," by Professor P. Geddes (in connection with Mr. H. Spencer's theory).—J. M. Robertson, "A hundred years of Malthusianism," *University Magaz.*, October and November 1897.

Mention should be made of the *Recueil des Mémoires Académiques de M. l'Abbé Mann*, Bruxelles, 1778-83, 4to, especially the mémoire; *Sur les moyens d'augmenter la Population et de perfectionner la Culture dans les Pays Bas Autrichiens*, 5 Avril 1775, p. 71: "Le degré de la population suit la mesure de la subsistance; ainsi plus on fait rapporter à la terre plus on la peuple." But MANN does not push the principle far.] J. B.

See ALISON, A.; BELL, WM.; BIRTH-RATE; BOTERO; CAREY, H. C.; CENSUS; CHALMERS, T.; CHARITABLE FOUNDATIONS, etc.; CHASTELLUX; CHECKS ON POPULATION; CHICKERING; CHILD; COBBETT; COLBERT; COLONISATION (SYSTEMS OF); COMFORT; COMMUNISM; COPLESTON; CULTURE; DARWINISM; DEATH-RATE; DEPOPULATION; DOUBLEDAY; DUPONT DE NEMOURS; DURATION OF LIFE; DUTCH SCHOOL; EDEN; EMIGRATION; ENCLOSURES; EVERETT, A. H.; FAMINE; FOUNDLING HOSPITALS; FRANKLIN; GEOMETRICAL RATIO; GODWIN; GRAPHIC METHOD; GRAUNT; GRAY, SIMON; HALE, M.; HALLEY; HARMONIES; HOWLETT; IDEAL; IMMIGRATION; INSURANCE; ITALIAN SCHOOL (vol. ii. esp. p. 464 n.); JARROLD; LIVING WAGE; LOWE, J.; LUXURY (p. 654); MARLO; MARRIAGE-RATE; MILL; MILNE. MINIMUM OF SUBSISTENCE; MIRABEAU (p. 776); ORTES; PRICE, R.; QUETELET; SCROPE; SÜSSMILCH; WALLACE, R.

POPULIST MOVEMENT IN THE UNITED STATES. The populist or people's party in the United States dates as a separate organisation from the year 1889, when delegates from the FARMERS' ORGANISATIONS in the U.S. and the Knights of Labour met at St. Louis and passed resolutions supporting, among other proposals, the free coinage of silver and the government ownership of railways. The next year (1890) another convention was held at Ocala, Florida. The "platform" adopted was very similar to that of 1889, the principal change being that "government control" of railways was substituted for ownership. A meeting at Cincinnati followed in 1891, when other political "planks" were introduced, as, abolition of national banks—election of president, vice-president, and senators by direct vote.

The convention at St. Louis in February 1892 modified this "platform"—abolition of national banks, direct election of president, vice-president, and senators were omitted; instead of government control, government ownership of railways was re-instated.

The next convention was at Omaha, July 1892. "Free coinage of silver, a minor clause on abolition of national banks, a sub-treasury scheme, or some similar system, a graduated income-tax, plenty of paper money, government ownership of railroads, election of senators by direct vote of the people, non-ownership of land by foreigners, revenue of state and nation limited to expenses, eight hours' work, postal banks, pensions, and prohibition of the present contract law and immigration system, these were the measures advocated."

The St. Louis platform of 1896 was on very similar lines to the Omaha platform of 1892. The address introducing it is full of overstatement. The nation is described as being "brought to the verge of moral, political, and material ruin." Corruption dominates, the people are demoralised, mortgages cover their homes, labour is impoverished, the land concentrated in the hands of the capitalists. Of the "platform" itself the more important "planks" refer to "currency, re-establishment of silver, government ownership of railroads, and the limited ownership of lands."

The expansion of the currency is desired, by the free coinage of silver and the increase of the currency to at least 50 dollars (£10) per head. But more important than this is the proposal for "cheap money, unlimited in amount and issued on land and other securities." Those who support these projects confound "money" with "capital"—they hope that "an ample and cheap currency will mean capital easily secured." Depreciation, however, is sure to follow as the "money" has no substantial basis.

"Prices go down, confidence is destroyed, and a financial crisis crowns the inflation. Such has been the experience of the past, such will be that of the future." These are the words of Mr. Frank L. M'Vey, from whose very clear description of the "Populist Movement" in *Economic Studies, American Economic Association*, August 1896, this statement is derived. Mr. M'Vey does full justice to the honesty of intention of the "rank and file" of the movement, but he cannot extend this feeling to all concerned. He regards the party as in a transient state and likely to be absorbed by the new silver party. Its success in the past since 1891 has been almost phenomenal, "but that success does not, under existing circumstances point to any probable future success."

PORPHYRY (A.D. 233-A.D. 303?), a Neo-Platonist philosopher and Aristotelian logician, concerns economists in respect of the principle of bilateral division which has been associated with his name. A diagram illustrating a series of such sub-divisions has been designated a "tree of Porphyry." This logical device is no doubt conducive to perspicuity of arrangement. Jevons regarded the bifurcate classification as the "foundation of all strict scientific method" (*Principles of Science*, vol. ii. p. 381), and classes the authority of Bentham as supporting this (*ib.*). In this opinion Jevons probably went fully far. In economics, as in other sciences, a plural rather than a dual division is sometimes best adapted to bring out essential properties. F. Y. E.

PORTAZGO, PONTAZGO, AND BARCAGE, tolls paid by travellers in Castile as a right of passage on the king's land. They were generally levied on the ways leading to fairs and markets. In Aragon they were called *Peage*. E. Ca.

PORTER, GEORGE R. (1792-1855), economist, married the sister of RICARDO. A paper on life assurance, which appeared in Knight's *Companion to the Almanac* for 1831, led to his receiving an appointment, the following year, in the Board of Trade. On the organisation of the statistical department of that office, Porter was placed at its head, becoming, besides, in 1840, senior member of the railway department. In the following year he was promoted to be one of the secretaries. Porter was one of the founders of the Statistical Society, to the journal of which he was a frequent contributor. In 1836 he published the two first sections, on population and production, of *The Progress of the Nation in its Social and Commercial Relations, from the Beginning of the Nineteenth Century to the Present Day*, London, 12mo. Sections three and four, dealing with interchange, and public revenue and expenditure, followed in 1838, and the final portion, treating of consumption, accumulation, moral progress, and the extent and condition of our colonies, in 1843. New editions, bringing the figures down to date, were issued in 1846 and 1851, 8vo. *The Progress of the Nation*, has been termed "an invaluable record of the first half of the nineteenth century. It is remarkable for the accuracy and variety of its information, and for the skill with which the results of statistical inquiry" are dealt with. It is written in an optimist spirit, characteristic of the time of its appearance. Free trade and popular education are, throughout, regarded as the sure heralds of an industrial paradise (see LAISSEZ-FAIRE). In 1846 Porter published a translation of Bastiat's *Popular Fallacies regarding General Interests* (see BASTIAT, F.), London, 16mo. He also wrote *The Effects of Restrictions on the Importation of Corn, etc.*, 1839, 8vo.

[*The English Cyclopædia*, vol. iv.—*The Dictionary of National Biography*, vol. xlvi.]

H. E. E.

PORTREEVE, an official found in London, Canterbury, Bath, and Bodmin, and probably existing in many other towns in Anglo-Saxon times, where the extent of trade made the collection of royal dues more than usually important. The office of a portreeve resembled that of a sheriff, particularly in London, where until after the Norman conquest there were

usually two at once. It is uncertain whether he was elected or nominated by the king.

[Kemble, *Saxons in England*, 1876, vol. ii. p. 173.—Stubbs, *Constitutional History*.] E. G. P.

POSITIVE LAW is nearly always used, in distinction from natural law, to indicate the enactments or decrees of a recognised authority. It is law laid down by man in the concrete, and may be either in agreement with the supposed law of nature or at discord with it. Lorimer, Ahrens, and generally speaking the jurists of the school of Krause, insist that the proper use of the term is in the sense of concrete embodiments of the natural law, in which case only the enactments in harmony with the law of nature could receive the name,—not "law as it is," except in so far as that is "law as it ought to be," but these writers wish to give an entirely new and unfamiliar meaning to a well-known term.

[Distinction in Grotius, *De Jur. B. et P. Proleg.*, 40. 17.—Wheaton, *Internat. L.*, 3rd Engl. ed., ed. A. C. Boyd, London (Stevens), 1889, pp. 4 *seq.*—Holland (Prof. T. E.), *Elements of Jurisprudence*, 8th ed. Clar. Press, 1896, ch. iv.: *Positive Law*, pp. 37 *seq.*, cp. iii. 33, etc.—Lorimer, James, *Institutes of Law*, 2nd ed. 1880, pp. 8 *seq.*—Green, T. H., *Works*, vol. ii. pp. 399, 400.—Austin, John, *Jurisprudence*, ed. 1832, lect. v. pp. 130, 131.—Bluntschli, *Staatsrecht*, ch. vii. note, quotes Melanchthon, *Philosophia Moralis*, for the narrower use of the words.] J. B.

POSITIVE THEORY OF CAPITAL. This is the title of the second of Prof. Böhm Bawerk's volumes on capital, the first having been negative and critical ("History and Criticism of the Theories of Interest on Capital," 1884). It appeared in 1889. Capital is defined as "products which are the means for the making of other products," and interest is explained by the difference between the value of goods now present, and the value of goods still future, present goods having *cæteris paribus* the higher value.

[For a sketch of the theory, see the Harvard *Quarterly Journal of Economics*, April 1889, and, for exposition and illustration, see Prof. W. Smart's preface to his translation of the Positive Theory, (Macmillan, 1891).] J. B.

POSITIVISM. It would not be possible, within the space here available, nor indeed would it be appropriate in this place, to attempt a complete account of a vast and many-sided system of thought, comprising a synthetic view of the several fundamental sciences, a theory of history, and a moral and religious doctrine. It is in the works of Auguste COMTE (*q.v.*) that positivism must be studied by those who wish to understand it as a whole. We shall only endeavour to exhibit in outline his estimate of political economy, and his view as to the systematic regulation of industrial society and the nature of the reform which its existing condition requires.

A letter to Gustave d'Eichthal in 1825 shows that Comte had early occupied himself with economic questions, and warmly sympathised with the efforts of English statesmen to remove restrictions on trade. In his *Philosophie Positive*, when treating the subject of sociological method, he entered on a criticism of the economists of the time. He censured them on grounds the most important of which have since been reduced to the following heads —(1) the isolation, in their investigations, of the material aspect of society from its intellectual, moral, and political aspects, neglecting the consideration of the consensus, and mutual action of the several social elements; (2) the metaphysical, or viciously abstract, way in which their doctrines were presented; (3) their immense exaggeration of the office of deduction in their researches; and (4) their want of relativity — the too absolute and unhistoric character of their conclusions, which often assumed that economic phenomena were identical in all stages of social development. Comte would be the first to admit that in some, at least, of these respects a marked tendency to reform, due in part to his own influence, has manifested itself since he wrote.

But whilst pointing out these vices, especially of method, into which writers on the subject had fallen; he fully acknowledged the "eminent services," to use his own expression, which political economy had rendered. Its beneficial work was twofold. In the first place, it acted powerfully in discrediting the old social and political system by proving, even to the satisfaction of existing governments themselves, their radical inaptitude for directing the industrial movement. This influence he recognised as having been exercised in a special degree by the "immortal work" of Adam SMITH, which he singled out for special commendation. These negative tendencies were, however, he thought, carried much beyond the needs of their essentially temporary destination; and the exaggerations of the less large-minded members of the school went so far as to consecrate a public state of non-government and a personal spirit of individualism. Sometimes a more rigid DOCTRINAIRE (*q.v.*) even denied the necessity of any regular moral instruction, and proposed the suppression of all state aid to art and science—and the more recent assaults on the fundamental institution of property had set out from principles maintained by recognised leaders in economic theory.

Besides its negative action, which within just limits was provisionally indispensable, political economy had done valuable service by fixing the attention of speculative minds, as well as of statesmen, on the social importance of the industrial character which distinguishes modern from ancient civilisation (see CITY—ANCIENT, MEDIÆVAL, MODERN), and thus giving prominence to the idea of social progress. But as long as the attempt should be made to treat the material existence of societies apart from the

other elements of their life, he held that no genuinely scientific theory of the subject could be constructed, and that only indirect and partial lights could result from such an effort. Economic studies must be absorbed into the larger science of SOCIOLOGY (*q.v.*), or at least must be conducted under its permanent presidence and control.

Proceeding now to the practical question of industrial regulation, we have to recognise at the outset that we cannot by ever so unanimous a vote alter the nature of things or of men, or change the general direction of human development. The true character of the world we live in is expressed by the phrase "modifiable fatality"; the main course of events, social as well as physical, is beyond our control, and the possible range of minor modifications is strictly limited by natural law. The first requirement in social action is to have at our command a scientific exposition of the constitution and evolution of society, and this positivists affirm to have been given by Comte,—the theory of development, the most essential as well as the most difficult branch of sociology, *having* been once for all established by his law of the three states and his hierarchical arrangement of the sciences, followed by his laws of the historical progress of moral sentiment and practical activity. The order of things instituted by man must be simply a consolidation and improvement of the natural order spontaneously arising from the action of these and other social laws. This principle condemns all the socialistic schemes which have been propounded for placing industrial life on essentially different bases from those which have been gradually elaborated in the course of history; so that, whilst they would be subversive and anarchical if realised, they are, in fact, incapable of more than a brief existence under an impulse of revolutionary violence. But, further, they are delusive when considered with a view to the interests of working men. No partial and merely material schemes can solve the social problem. The questions most important for the working classes are, in their nature, moral rather than political. Accordingly, positivism substitutes for the stormy discussion of rights the peaceful determination of duties, and for disputes respecting the possession of power, a study of the rules which *should* regulate its employment. What positivists believe to be wanted is not a violent change in existing social arrangements, but a regeneration of *opinions* and habits due to a general adoption of the religion of humanity, which embodies the real laws of society and teaches the true nature of the several social relations. The effect of this would be the foundation of a new spiritual order, renouncing all wealth and temporal power, proclaiming in general principle, and declaring in individual cases, the duties of each class, on the basis not of chimerical opinions but of a demonstrable social doctrine. From the nature of modern society one primary office of such an order would be to stand between the capitalist and the workman, enforcing by moral means the just claims of each. The calm but energetic action of such a body would satisfy the poor, whilst reassuring the rich, and, without disturbing the essential institutions which exist as the result, whether of natural law or of historical causes, would inform them with a new spirit, and gradually and peacefully modify them as might be necessary. The working classes are, and, except in very special contingencies will always be, unfit to take part in the direct government of society, or to decide finally on political measures; and, such an office, if it were assigned to them, would tend to corrupt them without furthering their real welfare. In the system now indicated, their public function, as distinct from their professional occupations, would be to support the new spiritual order by the force of opinion in the difficult work of controlling the exercise of material power, whether in the form of wealth or of numbers, by the continuous application of a rational moral doctrine already accepted by the community. This solution, it will be seen, amounts to the reconstruction, on better bases and in a more favourable situation, of the division of the temporal and spiritual powers, empirically pursued and partially realised in the middle ages (see AQUINAS; CANON LAW). The spiritual authority so established, resting only on intellectual and moral influences, subject to full discussion, and depending on the laity for its maintenance, could not be oppressive. It would not merely improve the relative conduct of classes within each state, but would systematically apply moral considerations, where they are now so much needed, to the mutual relations of different political communities. The more these great questions are studied, the clearer it becomes that the only solution which is neither illusory nor degrading is the moral one, which would insist, through a suitable organ, on the subordination, not of wealth only, but of all individual powers and endowments to the continuous service of humanity. The necessity of such a function is universally recognised, but many continue to ignore the obvious truth that every social function requires an appropriate organ. What has been said sufficiently indicates that positivism does not sympathise with the collectivists (see COLLECTIVISM), or any other party aiming at the elimination of the ENTREPRENEUR (*q.v.*), an impracticable, as well as a mischievous, programme. The rise and progress of a type of society essentially devoted to industry secures to the chiefs of that form of activity an ultimate political ascendency, which they would, indeed, have already attained if they had set themselves, following the example of the best among them, to govern the working classes, instead of exploiting or deserting them. They are to be regarded, as are also their workmen, as public functionaries; their special office being that of preserving, increasing, administering, and transmitting the social capital. Their employment of this capital, though requiring to be morally regulated as we have described, should not, except in extreme cases, be the subject of legal control. Without the guarantee of a just security, they cannot perform their functions aright. Positivism favours, instead of opposing, the concentration of wealth in the hands of the active rich—as increasing the power available for social ends, whilst more visibly fixing responsibility for its

proper use—subject, however, to the condition that the extent of the industrial administration of each capitalist ought not to exceed his capacity of personal supervision.

Of the further prescriptions of positivism affecting the industrial world, which may be studied in the *Politique Positive* of Auguste COMTE, the only one which we can mention here is that of the withdrawal of women from non-domestic labour, so that they may be altogether devoted to their proper social duties—the economy of the household, the care of the health and comfort of its inmates, and the early education of the young, especially the cultivation of their affections and the formation of their habits.

[See COMTE, Aug.; COMTE, AUG., AND ENGLISH POLITICAL ECONOMY. See also Littré's *Auguste Comte*, 1864. The later positivists do not all follow Comte in rejecting political economy, and Littré does not.] J. K. I.

POSSESSION; POSSESSIO, when used without any technical meaning by Roman legal writers, signifies the mere fact of physical control of a thing. *Possessio*, in a legal sense, is physical control of a thing either by oneself or by one's agent, to which the law attaches special legal consequences. Possession of this kind, which may be called legal possession, is simply matter of fact, not of right or title to possess (*possessio in facto non in jure consistit*). Hence a person may have legal possession of a thing, while some one else has the right to such possession, though the latter may vindicate his right in an action based on proof of title.

Thus a thief may have legal possession of the property of another, as against the world in general.

The special consequences which may attach in Roman law to possession are of two kinds.

(1) Possession is protected by means of interdicts (see INTERDICTUM) against arbitrary disturbance on the part of any one, including the owner of the thing, except that the possessor cannot maintain such an interdict against a person from whom he has taken possession by violence or by fraud or by his leave and licence (vi. clam, precario).

(2) Possession for the time defined by law gives rise, under certain circumstances, to a title of ownership by usucapion (see USUCAPIO) or prescription (see PRÆSCRIPTIO). E. A. W.

POST. See POST OFFICE, THE.

POST OFFICE, THE. English postal history begins about the middle of the 16th century. Events forced Henry VIII. and his successors to maintain an organised service for despatches. Increasing trade led the foreign merchants to institute a service to the continent, and their jealousies placed its control in the hands of the government. Thus in 1558 Thomas Randolph united the mastership of both posts. By the provision of horses at fixed points all travelling and correspondence were made easier. A monopoly increased the effectiveness of the service, and the control of correspondence thus secured became a valued instrument of government. Its utility and necessity were openly avowed until the restoration, and fully realised by Charles II. and James II.

In 1635 the posts within the kingdom were opened to private letters on the proposal of Thomas Witherings. The growth of correspondence probably made such a step necessary to maintain government control. A monopoly on existing postal routes was proclaimed and secured by cheap rates as much as by law. For a single-sheet letter only 2d. was charged for 80 miles or less, and 4d. up to 140 miles. Beyond this, 6d. was charged, and 8d. to Scotland. No profit was expected, but a reduction of expense by about £3000. In 1640 the parliament dismissed Witherings, and a struggle for control of the post office ensued. In 1644 Edmund Prideaux became postmaster. Until 1650 he worked at his own cost, taking the postage. He opened new posts, and in 1650 a rent of £5000 a year was wrung from him. Since then the post office has always been a source of revenue, and frequently administered in that character only. In 1653 Prideaux ceased to be postmaster, and the office was "farmed" for £10,000 a year. The profits were estimated at from £14,000 to £20,000 a year. This revenue was from the postage on letters only, though the monopoly of letting post-horses secured postmasters at low salaries, and so reduced the cost of working.

In 1657 the first post office act of parliament was passed. It reduced the rate beyond 80 miles to 3d. for England and to 4d. on letters to Scotland. It fixed the charge to the public for post-horses at 2½d. a mile for each horse, and "a guide groat for each stage." In 1660 a new act repeated most of the Commonwealth act, and forbade the carriage of mails in ships not built in England and navigated by English crews. Private posts of three years' standing were to be taken over and their organisers rewarded. From 1660 the post office was farmed for £21,500, and in 1667 this was increased to £43,000. In 1663 the revenue of the office was assigned to the Duke of York, and in 1677 he took the management into his own control instead of "farming" it. On his accession in 1685 the revenue was estimated at about £65,000. Thenceforward it became a part of the personal revenues of the sovereign, and subject to that minute exchequer control which has always marked its administration. From 1688 to 1691 the payments into the exchequer averaged £50,000 a year. In 1695 they were £63,000, and in 1700, £77,384. They represent the net revenue after deducting all charges, and are the only index of the volume and growth of correspondence.

Throughout its history the post office has at once encouraged, absorbed, and suppressed private enterprise. In the 17th century bad roads and slow communication made it difficult

for a central administration to extend its system. Hence locally managed branch posts were necessary, but when these were established a desire to increase revenue and government control, as well as to simplify the system, led to their absorption. The same motives led to the suppression of competing private posts. In 1649 a post, established by the corporation of London, was suppressed by Prideaux. In 1680 William Docwra took over a small business of collecting and delivering letters in London and Westminster. He opened many offices and employed a large staff in delivering letters and parcels up to 1 lb. in weight and £10 in value, with free insurance, at a charge of 1d. each. In 1682 proceedings were taken against him for infringing the royal monopoly. Docwra pleaded that as no local post existed in London he was not competing with the official posts; but the king's bench held that the monopoly extended to all places except those lying off the lines of posts. A nominal fine was imposed, and the system taken over by the post office. It was worked tolerably well, though probably not so well as by Docwra, and the case illustrates in its details the conflict of monopoly and private enterprise. The penny post, which as late as 1801 became the twopenny post, existed as a separate branch in London until the introduction of uniform penny postage. In 1709 an attempt was made by Charles Povey to set up a halfpenny post in London, but it was promptly suppressed, and no other serious attempt was made to challenge the postal monopoly until 1869, when the operations of the Circular Delivery Co. were pronounced illegal. In 1890 two messenger companies, who included in their work the special delivery of letters, were compelled to pay a royalty to the post office, and the monopoly remains in active force. It covers the collection and delivery of letters, except letters sent by a servant, friend, or person specially employed by the sender. Its defence is that by its aid a cheap uniform service is maintained in remote districts, such as would be impossible if private enterprise were allowed to occupy the more profitable centres; but even so protection within these areas needs to be carefully limited if it is not to check the elaboration of social enterprise.

Towards the close of the 17th century, and for the first twenty years of the 18th, the network of posts was extended by contracts given to many private persons. In 1720 Ralph Allen, the most distinguished of these contractors, then postmaster of Bath, made a general contract for the establishment of "cross-posts," *i.e.* posts crossing from one post-road to another. He received the postage on letters he carried, and paid all his expenses and £6000 a year to the government. His contract was renewed from time to time until his death in 1764, and he opened many new posts at his own cost, besides giving a daily post on many of the main lines. This he did in preference to increasing his payment to the exchequer, and his enlightened policy brought an ample reward. In 1761 his accounts showed a profit of £12,000 per annum. Allen's distinction in other ways is well known, but his work in the post office is worthy of all praise, and ranks him with Rowland Hill.

In 1784 John Palmer, also a citizen of Bath, organised the mail-coach system. Previously mails were carried by mounted post-boys, who were constantly being robbed. Insecurity had altogether destroyed the efficiency of the service for business purposes. The new coaches with armed guards were practically exempt from robberies, and the increase of correspondence was enormous. Palmer was promised 2½ per cent on the net revenue beyond £50,000, but the government soon tired of its bargain and forced on him a pension of £3000 a year. In 1813, after a prolonged discussion in parliament, a grant of £50,000 was made to him.

The 18th century was marked by the growth and abuse of the "franking" privilege enjoyed by members of both houses of parliament. In 1716 franked letters were estimated at 17,500 a year. In 1763 their postal value at current rates was £170,000 or nearly twice the net revenue. In 1764 a reduction of some £30,000 a year was made by an act requiring the whole address to be in the same writing as the "frank." Successive governments tried to reduce the burden, but it was not extinguished until 1837.

The growth of the revenue of the post office, and of the volume of correspondence, from 1724, is shown by the following table. From 1704 to 1713 the average net revenue was £67,000, and from 1714 to 1723 about £93,000. The increase was due chiefly to an increase of rates in 1711.

Years.	Gross Revenue.	Expenditure.	Percentage of Cost.	Net Revenue.
1724–1733	£177,492	£81,490	£46	£96,002
1734–1743	187,348	94,175	50	93,173
1744–1753	205,480	115,764	56	89,716
1754–1763	234,121	146,210	62	87,911
1764–1773	278,960	121,713	44	157,247
1774–1783	359,984	209,176	58	150,808
1784–1793	517,434	209,061	40	308,373
1794–1803	961,223	339,596	35	621,627
1804–1808	1,453,082	419,980	29	1,033,102

The variations in expenditure in the earlier decades were due to the loss of packet boats, and other war expenditure. The increase of revenue from 1764 was due to the diminution of "franks," the growth of trade, and the absorption of Allen's "bye-posts." The enormous growth of revenue from 1784 was owing to Palmer's mail-coaches, and the growth of trade. The increase in net revenue is remarkable. Successive increases of postage rates are considered to have produced little or no increase of revenue.

The early years of this century were marked by

stagnation. In 1839 the revenue was less than in 1814. High rates checked correspondence or diverted it to irregular channels. On the 10th January 1840, Rowland Hill's plan of uniform penny postage was introduced after much resistance. The number of letters increased in a year from 82 to 169 millions, but the net revenue fell from £1,600,000 to less than £600,000. This was partly due to an over-sanguine estimate, but more to the substitution of costly railway conveyance for carriage by mail-coaches, the expense of which was very small, and had been treated by Rowland Hill as an almost negligeable quantity. Besides the reduction of cost an improvement in the quality of the service had to be given.

Hill had relied on the substitution of pre-payment, made easy by the device of adhesive stamps, for payment on delivery, to save the cost of complicated treatment and accounting, but the public at first regarded pre-payment as an insult to correspondents and were slow to adopt it. In former days pre-payment would have been fatal to safety, and only a system of hand-to-hand accounting more elaborate than our present system of registration, with payment by the addressees, could secure delivery. The saving due to pre-payment illustrates well the commercial value of the honesty which makes the system possible.

Since 1840 the chief changes in the letter post have been in the increase of the limits of weight. In 1871, 1 oz. instead of ½ oz. was allowed for 1d. and in 1897 the limit has been raised to 4 oz. In 1870 halfpenny post cards were issued, at first at face value, but in 1871, in deference to an outcry of the stationers, a charge of ½d. for 12 was added for the material. In 1894 private cards were allowed to be used with adhesive stamps. In 1883 reply post cards were issued.[1]

The book-post was instituted in 1848 for the encouragement of education and literature. The rate of 6d. a pound was reduced in 1855 to 1d. for 4 oz., 2d. for 8 oz., and 2d. for each additional half pound. In that year 3 million book-packets were posted. In 1856 circulars were admitted to the book-post. In 1866 a rate of 1d. for every 4 oz. was introduced, and in 1870 a rate of ½d. for every 2 oz. The post has also been extended by widening the definition of articles transmissible, and has in 1897 been practically absorbed in the letter post, except for packets of less than 2 oz., by the assimilation of rates.

In 1862 a special rate was allowed for patterns sent abroad, and in 1863 for patterns sent by inland post. In 1870 the rate for patterns and samples was made the same as for books, but in 1871, on a reduction of the rates for heavy letters, the pattern post was abolished from the difficulty of distinguishing genuine patterns from other small packets. In 1887 it was re-established, but it has now also, by the assimilation of rates, been absorbed in the letter post.

[1] In 1890 railway companies were allowed to accept single letters for transmission by train for a fee of 2d. on each letter in addition to postage. This service may be used either as an alternative or as a supplement to the ordinary post. In 1891 the post office undertook the delivery of letters and parcels by express messengers, employed either for the whole course of transmission or on arrival by post at the terminal office.

The newspaper post had its origin in the 17th century, when "the clerks of the roads" were allowed to frank newspapers, and thus became the chief newsagents. Many newspapers were also sent under other franks, and practically none paid postage. In 1825 newspapers were allowed to pass free by act of parliament, but they were still charged with a stamp-duty, which was compulsory till 1855, and was accepted as an equivalent of postage until 1870, when the rate of ½d. for each registered newspaper was introduced.

The parcel post was established in 1883, and since 1885 has been extended to nearly all parts of the world except Russia and the United States, which have no internal parcel posts. The high charges of the railways for parcel mails has led to the extended use of road coaches for this service. The economic advantages of the parcel post—*e.g.* to the agricultural districts in the cheap and expeditious carriage of agricultural produce—are scarcely yet developed.

In 1841 the registration of letters was begun, with a charge of 1s. for each letter. No compensation for loss was given. In 1847 the average number of registered letters sent by the night-mails from London was only 320. In 1848 the fee was reduced to 6d. In 1858 letters for the colonies and abroad were first registered. In 1864 the fee was reduced to 4d., and in 1878 to 2d., with compensation for loss up to £2. In 1886 a system of insurance up to £10 was introduced. In 1891 the limit was increased to £25, and in 1892 to £50. In 1886 the insurance system was also extended to parcels.

In the present century the post office has assumed three new functions—the transmission of money, and telegrams, and the custody of savings. These are alike only in requiring a widespread system of branch offices. In 1792 the "clerks of the roads" at the general post office were allowed to issue money orders as a private venture. In 1798 the business was transferred to Barnes and Stow, two officials, from whose successors it was taken over by the post office in 1808. In 1839, 188,000 orders were issued at rates of 6d. for £2 and 1s. 6d. for £5. In 1841, when the rates were 3d. and 6d., one and a half million of orders were issued. In 1862 the maximum amount was raised to £10, with a commission of 1s. In 1871 a graduated scale of charges, rising by pennies, was introduced, and 12,000,000 orders were sold. In 1877-78 the number reached its maximum of 18,000,000. The increase was checked by an increase of rates in 1878, and in 1881 by the introduction of postal orders which have superseded to a great extent money orders for less than £1. Recently there has been a steady increase of orders for higher amounts. In 1855 money orders were first sent abroad to the Crimea, and the system was gradually extended to the colonies. In 1869 a money order convention was made with Switzerland, and since then others have been made with practically every civilised state. In 1889 money orders were issued as an experiment by telegraph between London and seventeen large towns, and the system has since been extended to all money-order offices. The post office "money" order is a restricted form of cheque which offers security as its chief advantage. The postal

order is a bank note with a time limit to currency. Its chief disadvantage is the risk of loss and the temptation to dishonesty of post-office servants. Their enormous utility, chiefly to retail trade, is shown by the sum £55,075,961, transmitted in 1896-97 by means of these two kinds of orders.

In 1870 all private telegraphic undertakings except certain cable companies were purchased by the government for £10,130,000, and a strict telegraphic monopoly established. It covers the transmission of electric signals with or without the use of wires, and even more. In 1869 the charges for telegrams of twenty words varied from 1s. to 6s., according to distance, with a local charge of 6d. in London and some other large towns, covering about 2 per cent of the total number of telegrams. The total number of offices open was about 2000, but many of these were competing offices clustered in busy centres. Many towns of from 3000 to 6000 inhabitants were from five to ten miles from an office. The use of the telegraph was a luxury confined to certain classes. The expense and difficulty of sending telegrams limited public use. These results represent the development of telegraphy by commercial enterprise in about twenty-five years. Upon the transfer to the state a uniform rate of 1s. for twenty words with free addresses was given. Within two years 2200 new offices were opened. In 1869 the total number of telegrams was less than 7,000,000. In 1870 it rose to 10,000,000, and in 1872 to about 15,000,000. In 1884-85 the number of telegraph offices was 6000, and the number of telegrams about 33,000,000. A new rate of 6d. for twelve words including addresses was introduced, and in 1886-87 the number rose to 50,000,000. The average payment for a telegram fell from 1s. 1d. to 8d. The revenue, which in 1884-85 was £1,755,118, increased by only £3000 in 1885-86, while the number of telegrams was increased by 6,000,000. The traffic in large towns was especially stimulated by the change. In London local telegrams increased from 1,800,000 in 1884-85 to 3,800,000 in 1886-87. The growth of the telegraph service has since proceeded rapidly in all parts of the kingdom, though the business is one that is especially sensitive to commercial depression. Since 1878 a keen competition has grown up between the telephone and the telegraph. In many cases their functions are different, but the telephone undoubtedly takes the place of the telegraph in local communications. At an early date a decision was obtained that the transmission of messages by means of telephones is an infringement of the telegraphic monopoly, and since then all telephone companies have paid a royalty of 10 per cent on their earnings to the post office. The protection of a more cumbersome system at the expense of a more convenient system, even though the former has been acquired by the state at great cost, appears to be open to serious economic objections, though the present arrangement may be defended on other grounds.

The amount paid by the state for the telegraphs has often been said to be excessive, but it must be remembered that it represented not merely the actual value of the plant and business acquired, but also all future possibilities. The telegraphs have not been financially successful in the hands of the state, but even this result is exaggerated in appearance by the inclusion of all capital expenditure with the annual expenditure. A. M. C.

[General History.—(England) Lewins, *Her Majesty's Mails*, 1864.—Joyce, *History of the Post Office*, 1893.—(France) Belloc, *Les Postes Françaises*, 1886.—(Germany) Von Stephan, *Geschichte der preussischen Post*, 1859.—(Ancient) Veredarius, *Das Buch von der Weltpost*, 1885; new edition, 1894.

Special Works.—(Early posts in England) *Appendix to Report of Secret Committee on the Post Office*, Parliamentary Paper 582 of 1844.—Wilson Hyde, *The Post in Grant and Farm*, 1894.—(Packet service) Norway, *History of the Packet Service*, 1895.—(Penny Postage) G. Birkbeck Hill, *Life of Sir Rowland Hill*, 1880.—(Recent history) Baines, *Forty Years at the Post Office*, 1895.

Many parliamentary papers on post office subjects have appeared, *vide* Index to Papers on the Post Office, Parliamentary Paper No. 10 of 1840, and general indexes published periodically. General statistics of English post offices since 1854 are given in the annual reports of the postmaster-general. The International Bureaux at Berne publish returns relating to posts and telegraphs in the countries of the international union.]

POSTAL NOTE. See Post Office, The.

POSTLETHWAYT, James (d. 1761), perhaps a brother of Malachy Postlethwayt, wrote *The History of the Public Revenue from the Revolution in 1688 to . . . Christmas 1758*, London, 1759, 4to. He published *Collection of the Bills of Mortality from 1657 to 1758 inclusive, with A Comparative View of the Diseases and Ages, and a Table of the Probabilities of Life, for the last 30 Years*, London, 1759, 4to.

[*Dict. Nat. Biog.*—M'Culloch, *Lit. Pol. Ec.*]

POSTLETHWAYT, Malachy (1707-1767), wrote on the financial condition of the country from the standpoint of seeking its improvement. His largest book, based on the French work of J. Savary des Brulons, of which it is in a great part a translation, was *The Universal Dictionary of Trade and Commerce*, London, 1st ed. 1751, 2 large vols. fol. 4th ed. 1774, apparently little more than a reprint of the 3rd ed. of 1766. The book contains a good deal of information, often taken from the works of others, and, generally without acknowledgment, put together in an unsystematic manner (M'Culloch, *Lit. Pol. Ec.*). He also wrote: *The African Trade the Great Pillar and Support of the British Plantation Trade in America*, etc., 1745, 4to.—*The National and Private Advantage of the African Trade considered*, 1746, 4to.—*Considerations on the Revival of the Royal British Assiento . . . with an attempt to unite the African Trade to that of the South Sea Company*, etc., London, 1749.—*Great Britain's true System*, etc., 1757, "little more than a transcript from Cantillon's book, published two years before" (Cossa, *Introd. to P. E.*, trans. by L. Dyer, Macmillans, 1893).

Postlethwayt "compares the commercial and colonial policy of England with that of Holland, and tries to show how the British system might be improved, so as to outdo our rivals."—Cunningham, *Growth of British Industry and Commerce in Modern Times* [see also Ashley, *Introduction to English Economic History and Theory*, and *Dict. Nat. Biog.*].

POSTLIMINIUM, the *jus postliminii* is an expression used in Roman law for the right of a person on his return from capture in an

enemies' country to be put in the same legal position as he held before his capture, his recovery of his rights being based on the fiction that he had never left his own country and so had never lost his rights by becoming a slave of the enemy. E. A. W.

POTHIER, the abbé Remy (1727-1812).

Wrote: *Éclaircissements sur le prêt, l'usure et le trafic de l'argent* (Reims, 1809) in opposition to the strict views of CANON LAW (*q.v.*) on these subjects. E. Ca.

POTHIER, ROBERT JOSEPH (1699-1772), a councillor at the *Présidial*, a court of justice, and professor of law at the university of Orleans. He is said to have been so conscientious in the discharge of his judicial duties that, having once forgotten to mention, in a report, a document decisive on the case, he indemnified the losing party out of his own pocket. A member of the *Chambre des Domaines*, he so often inveighed against the fiscal exactions of the revenue officers that they were wont to call him the "intractable" man.

A studious and highly gifted jurist, he worked twelve years at the correction and co-ordination of the text of the Pandects—*Pandectæ Justinianæ* 1748 and 1782; translated into French in 1817, 26 volumes, and in 1818-20, 5 vols. 4to. Some years earlier he published the *Coutume d'Orléans* (1760, 1776, and 1780). Thoroughly acquainted with French law, he wrote a long series of learned monographs on *all* its various branches: *Traité des Obligations—du Contrat de Vente—des Fiefs—des Constitutions de Rentes, etc.*, which has been of invaluable assistance to the authors of the present *Code Civil*. Writing with great simplicity and extreme clearness, he was accustomed to examine every question under the double aspect of the *for intérieur* and the *for extérieur*.—natural equity and positive law. His works have often been republished in a collected form, from 1773 to the present time (Pothier, *Œuvres annotées et mises en corrélation avec le Code Civil et la législation actuelle, par Bugnet*, 2nd ed. 1861-62, 11 vols.). E. Ca.

POTTER, WILLIAM (17th century):

Published anonymously *The Key of Wealth; or a new way for improving of Trade, etc.* (London, 1650, fol.). This work, being in the nature of a lengthy and involved discourse, the author published a short abstract of the same under the title of *The Tradesman's Jewel; or a safe, easie, speedy, and effectual means for the incredible advancement of Trade and multiplication of Riches, etc., by making Bills become current instead of Money* (London, 1650, 4to). The author is here concerned to show how the advancement of trade depends upon the quick circulation of commodities which in their turn are proportionable to the revolution of money or that which passes for such. To facilitate a quicker mercantile exchange, Potter advocated the current use of bills drawn on fixed security of land, houses, or known capital, and the formation of a reliable company of tradesmen who should be responsible for these bills printed in their name. This security was to be further "backed" by annually-paid insurers, who, in case of the highly improbable failure of all the company, would make the bills good. Under these conditions the credit of these bills would, the author thought, be every whit as assured as that of the Chamber of London or the Bank of Amsterdam. In the same connection Potter also published *Humble proposals to the Honble. the Councell for Trade, . . . shewing what particulars . . . if enacted by Parliament, would conduce to advance trade, imploy the poore and prevent the cruelty of creditors . . . tending (likewise) speedily to promote the enterprise discovered in a late treatise entitled the Key of Wealth* (London, 1651, 4to). A. L.

POULETT SCROPE. See SCROPE.

POULLAIN, HENRY (end of 16th and beginning of the 17th century), appears to have been connected with the mint. The French monetary system for the coinage of gold and silver had preserved the old mediæval ratio of 12 to 1, which no longer corresponded to the actual ratio resulting from the larger quantities of silver relatively to gold imported from America during the 16th century; other countries had adopted different and higher ratios, whence a great deal of trouble and disturbance in France, a flowing out of French gold and silver, and an extensive circulation of inferior foreign coins, which attracted the attention of SULLY (see his *Économies Royales*, section iv. "Questions Monétaires," pp. 110-114 in Guillaumin's *Petite Bibliothèque Économique*).

On this occasion Poullain printed, under the title of *Traictés des Monnoyes pour un conseiller d'Estat* (Paris, 1621, reprinted by Leverrier in 1709) the memorials, which he at different dates had submitted to various statesmen; the first one only (*De la Science et Cognoissance que doibt avoir un conseiller d'Estat au faict des Monnoyes*) is inscribed to Sully. It is divided into twelve *Maxims*, and is directed principally against the mintage of excessive quantities of small copper coins, an expedient then followed in Spain, which evidently excited the fears of Poullain; enumerating the six possible means of *weakening* the currency, he emphatically declares this one to be more dangerous than the five others taken together (p. 27, ed. 1621).

As to the exports of specie resulting from the existence of different ratios in different countries, a circumstance on which Poullain insists, he only once alludes to the desirability of making an international arrangement, which certainly was beyond reach at the period when he wrote. His remedies are the prohibition of monetary exports, and regulations ordering that no foreign coins shall be allowed to enter the kingdom: by exception, the most usual ones may be accepted by French merchants residing near the frontier, but only by *weight* instead of by *tale*, thus recommending a curious revival of a practice said to have been prevalent during the middle ages, and with the further obligation to carry them to the nearest mint to be recoined. E. Ca.

POUND.

Pound, Egyptian, p. 178; Sterling, p. 178; Tower, Troy, Avoirdupois, p. 178; Turkish, see Medjidie, p. 179.

POUND, EGYPTIAN. The currency of Egypt was re-organised in 1885, the standard of value then adopted being the gold pound of 100 piastres. This pound is of the weight of 8·544 grammes, and is composed of gold of the millesimal fineness of 875. Its value in English standard gold (1 oz., 916·6 fine = £3 : 17 : 10½) is 20s. 5d.

In addition to the pound the law provides for the issue of gold coins of the value of 50, 20, 10, and 5 piastres, proportionate in weight to the standard coin, and of the same fineness.

The English sovereign, the French 20-franc piece, and the Turkish pound, circulate in Egypt, and are received at the following rates:

Sovereign	97·937 piastres.
20-franc piece	77·668 „
Turkish pound	88·485 „

F. E. A.

POUND STERLING. This title, which now stands for the gold sovereign, was originally used to designate a pound weight of silver (5760 grains), of which 11 oz. 2 dwt. consisted of fine metal and 18 dwt. of alloy, which is equivalent to a millesimal fineness of 925. The word "sterling" implied silver coin of this fineness, to which reference is made by Ruding as having been the "old standard of England" in the reign of Edward I., and which was probably introduced into this country by the Anglo-Saxons.

The "pound sterling" was therefore a pound weight of silver of the recognised standard, and one of the earliest instances of the use of the expression occurs in the fourth year of Henry II.'s reign (1158). This pound was coined into 240 pence (see PENNY).

Sterling fineness was maintained unaltered until the reign of Henry VIII., when a debasement of the coinage was begun, and continued until the reign of Mary. On the accession of Elizabeth the old standard was re-established. With the exception of this brief period of fifteen years, the sterling fineness of the silver coins of England was maintained without alteration from the earliest Saxon times until the year 1816, when the standard silver currency was abolished.

In 1816 the standard silver currency was discontinued, and a gold standard of value adopted. The silver token coins then introduced are, however, of the same fineness as that of the old currency, the continuity of the sterling fineness of the silver coins being thus maintained to the present day. The title "pound sterling" has, however, since the above-mentioned date, been applied to the gold sovereign, which in its turn is subdivided into 240 pence. Both the words "pound" and "sterling" now used to describe the sovereign, are thus legacies from a former system of currency. The title "pound" has no reference to any pound weight of gold, and the term "sterling" originally implied coins of a millesimal fineness of 925, whereas the fineness of the gold coin is 916·6. In the sense, however, that "sterling" represents coins of the standard fineness fixed by law, the term may be considered rightly applied to the gold coins of the realm.

The following table records the various finenesses adopted for the silver coinage during the period of debasement referred to (see ALLOY):—

Year.	Reign.	Fineness of the Pound. Silver.	Alloy.	Fineness expressed millesimally.
		oz. dwt.	oz. dwt.	
From the introduction of "sterling" by the Anglo-Saxons to the year 1542.		11 2	0 18	925·0
1543	Henry VIII.	10 0	2 0	833·3
1545	„	6 0	6 0	500·0
1546	„	4 0	8 0	333·3
1547	Edward VI.	4 0	8 0	333·3
1550	„	6 0	6 0	500·0
1551	„	3 0	9 0	250·0
1553	„	11 1	0 19	921·25
1553-58	Mary	11 1	0 19	921·25
1558 to 1816	Elizabeth to George III.	11 2	0 18	925·0

The origin of the word sterling is generally traced to EASTERLINGS; the name popularly used in Norman times to designate traders with England who hailed from German and Scandinavian ports, and in dealing with whom this standard of value was employed. F. E. A.

POUND. TOWER, TROY, AVOIRDUPOIS. The old mint pound, kept in the Tower, and known as the Tower pound, was equal to 5400 of our troy grains. It was the standard for gold and silver from Saxon times, and this weight of silver was the earliest form of the pound sterling. An Act of 51 Hen. III. (1266) declares that the English penny, "called a sterling, shall weigh thirty-two wheat corns in the midst of the ear; and twenty pence do make an ounce; and twelve ounces a pound." This gives us the origin of the divisions of our monetary system.

TROY weight was probably introduced from France early in the 14th century. By an Act of 18 Hen. VIII. (1527) the Tower pound was abolished, and the "pounde Troye, which exceedeth the pound Tower in weight iii. quarters of the oz." was declared the legal standard for gold and silver. Taking the Tower pound at 11¼ troy ounces, the troy pound would weigh 5760 grains, as at present.

The AVOIRDUPOIS pound, of 16 ounces, and equal to 7000 troy grains, is at least as old as the beginning of the 14th century, and superseded the old commercial pound, or merchant's pound, which contained 14 Tower ounces, or 6750 grains troy. There was also formerly in use a commercial pound equal to 16 Tower ounces, or about 7200 grains troy.

Our present standard weights are believed to be almost exact equivalents of those, legalised in 31 Edward I. (1303), renewed in 12 Hen. VII. (1497), and again in the reign of Elizabeth (1588), and kept in the Exchequer. They were again adjusted by 5 Geo. IV. c. 74 (1824),

which declared the standard troy pound to equal $\frac{5760}{252{\cdot}458}$ of the weight of a cubic inch of distilled water, temperature 62° Fahr., barometer being at 30 inches; and finally they were scientifically adjusted by the Standard Commission (1843-1854).

Troy and avoirdupois weights compare with metric weights as follows:

1 grain troy = ·06479895 grammes
1 lb. troy = 373·23937728 ,,
1 lb. avoir. = 453·5926521 ,,
1 gramme = 15·43234874 grains troy
1 kilogramme = 2·04621248 lb. avoir.

[H. W. Chisholm, *On the Science of Weighing and Measuring.*] R. W. B.

POUND, TURKISH. See MEDJIDIE.

POUNDAGE. See TONNAGE AND POUNDAGE.

POVERTY. Much of the confusion of thought incidental to economics arises from the fact that the terms employed have also a popular and loose sense. We speak of the poverty of an individual or of a nation, but we also speak of poverty of surroundings, of intellect, even things inanimate, as scenery, or a building, or a poem, are said to be poor. Underlying all these uses is the same idea, viz. a defect or shortcoming with reference to an end or to a standard, more or less arbitrarily set up. Applying this economically, we find that poverty implies the absence of some of the material conditions or "goods" of life, without which life is imperfect. Thus Aristotle, in a well-known passage in the *Ethics*, speaks of a certain χορηγία or equipment, without which goodness and happiness are impossible. So that, whatever be taken to be the end of life, poverty implies an insufficiency of the material equipment needed to attain to it. This marks it off at once from destitution, which implies the want of the conditions necessary to a merely physical life, or to put the distinction shortly, destitution is the lack of the necessaries of life, commonly so called, poverty an insufficient supply of its comforts (see POOR).

Although it is no doubt true that material well-being is not the only or the highest end in life, no one would seriously combat Aristotle's statement that a certain level of material comfort, the provision of a certain amount of necessaries and conveniences, is essential to any high type of life whatsoever. Hence a growing conviction that poverty is an evil which the government of a country should combat. Such a feeling is of comparatively recent date, as witness the writings of the early church fathers on the subject, and the popularity in the middle ages of vows of poverty, with their embodiment in the orders of monks and friars.

But granting that the lessening of poverty, or in other words, the general diffusion of a higher standard of material comfort, is a proper aim for government—nay, one of the reasons for corporate life, the question remains how it may best be attained. The history of nations is a long record of the failure of experiments with this object. Governments have attempted by arbitrary action to raise wages and to cheapen commodities; to redistribute and to equalise wealth. The secret of their failure has lain in the fact that, so far from calling out and strengthening the motives which lead men to seek independence and to improve their position, they have weakened and crushed them. Without going too far into detail, the results of the teachings of experience may be summed up under one or two heads: (1) the history of the poor law has shown conclusively the mistake of endeavouring to act immediately on the individual, and to better his position, as it were, in spite of himself; (2) in this country, at any rate, we have satisfied ourselves that in all exchange of commodities the fullest freedom should be permitted, subject only to the prevention and punishment of fraud. The extension and development of this principle, till it amounts to a general policy of *laissez-faire*, allowing of unlimited competition, and leaving it to each to prove his right to succeed in the struggle, is claimed by the extreme individualists as the only solution of the problem. But (3) the tendency of the time is for government to interfere more and more where services are exchanged; strengthening the position of the weaker party, and enabling him to compete on somewhat more equal terms. Under this head would come the various acts of parliament regulating the relations between employer and employed. (4) Hand in hand with these measures go all those which aim at improving the conditions under which the poor live, at increasing their opportunities to improve their position, and so nullifying in a measure inherited inequalities, and the restrictive power of poverty. Such, for example, would be the provision of education, and the opportunities of carrying it on, whether general, in the shape of free libraries, or technical, in schools and institutions for the purpose. Closely connected with these are the opportunities for thrift which are afforded by the post office savings banks and insurance policies. It is a question of degree how far this provision of the means of escape from poverty should be carried. In education, for instance, we have now, as the phrase runs, a ladder set up by which the passage from one stage in society to another is made easier, but we do not, as is the case elsewhere, provide, to any large extent, means of rational recreation (see PUBLIC ASSISTANCE). (5) The work of the state in England may be said to be limited to the provision of an exodus from poverty, of which

men may avail themselves according to their inclinations and powers. The extreme socialists would go much further in the direction of organisation and co-operation, until the means of production, being in the hands of the state, it can deal with poverty and gradually abolish it. But here, more than in most fields of practical economics, a wide experience of the effects of moderate action is needed to justify recourse to extreme measures.

The above is a rough sketch of the attitude of the state towards poverty and its cure; the principles which should guide the individual in his use of charity towards this end may be seen in the articles CHARITY and CHARITY ORGANISATION.

It is not to be expected that poverty will ever "cease out of the land"; there must always be different standards of living in the different classes of a community, and there will always be those who, from some cause or another, drop from the higher to the lower. The most that can be achieved is that the passage upwards should be facilitated, and that the blame, if blame it be, of poverty should rest on the individual rather than on his circumstances, and that the hopelessness of poverty should become less pressing. There are not wanting signs that this is already the case in England. Among them may be mentioned the steady progress of the working class in material well-being, the improvement in their housing, clothing, diet, and education; the increase in the number of moderate, as compared with large fortunes, shown by the income-tax returns, the great development of the practice of insurance all through the community. These are evidence of independence of character, of the readiness to make use of opportunities which, without that independence, would be offered in vain. L. R. P.

POWER OF ATTORNEY. See ATTORNEY, POWER OF.

POWNALL, THOMAS (1722-1805), governor of the colony of Massachusetts Bay, wrote *The Administration of the Colonies* (1 vol. 8vo, 2nd ed., London, 1765; 3rd ed. enlarged, 3 parts, London, 1766, 8vo; 4th ed., 2 parts, London, 1768-1774, 8vo; 5th ed., 2 vols. 1774, 8vo). In the eight chapters of the first vol., the author considers the necessity for forming a state office for administering the business of the colonies; a bill of rights and general act of commerce for the colonies; the manner of providing for the support of the king's government in the colonies, and the state of the courts of judicature there; their internal taxation; general principles of money both in coin and paper; the administration of their (American) Indian affairs; and lastly, a consideration of the commerce which arises from the colonies, and the revision proposed of the actual state of that of the British colonies.

Pownall also wrote *A Letter to Adam Smith, being an examination of several Points of Doctrine laid down in his Enquiry into the nature and cause of the Wealth of Nations* (London, 1776, 4to).

[Rae's *Life of Ad. Smith.*] A. L.

POYNINGS' ACT (Law) was a legislative measure which formed an epoch in the history of Ireland. In the time of Henry VII. English authority over Ireland had reached its lowest point; and it became necessary to make the subjection of the country, so far at least as the settlers of the PALE were concerned, something more than a mere name. The great Norman family of the Geraldines had acquired almost unlimited power in Ireland; and when they supported the cause of Perkin Warbeck and Lambert Simnel, Henry determined to retaliate on them and on Ireland. He accordingly sent Sir Edward Poynings as lord-deputy with a strong army, and full powers to effect a radical change. Poynings called a parliament at Drogheda (1494-95), and compelled it to pass the famous measure known as Poynings' Act. This act contained provisions to restrain the lawlessness of the Anglo-Irish within the pale and to confirm the royal sovereignty. All private hostilities without the deputy's licence were declared illegal, but to excite the Irish to war was made high treason. Murders were to be avenged by legal process, and not by pillaging and the exaction of fines. The citizens or freemen of towns were prohibited from receiving wages or becoming retainers of lords and gentlemen; and to check the power of the freemen, none who had not served apprenticeships were to be admitted as aldermen or freemen of corporations. The requisitions of coyne and livery were expressly forbidden, and the statutes of Kilkenny were renewed and confirmed. All the chief officers of state and the judges were to hold their patents during pleasure instead of for life as heretofore. But by far the most important provisions were those which enacted that all existing English laws should be in force in Ireland, and that no parliament should be held in Ireland without the sanction of king and council, who should also be able to disallow statutes passed by the Irish houses. These provisions practically annulled the legislative independence of the English colony in Ireland, and—as they remained in force for nearly three centuries—proved to be one powerful means for maintaining the subordination of the island.

[*Irish Statutes.*—Barnett Smith's *History of Parliament.*—Plowden's *History of Ireland from its Invasion under Henry II. to its union with Great Britain.*—Haverty's *History of Ireland, Ancient and Modern.*] G. B. S.

PRAEPOSITUS, or provost, rather a general than a particular name, given chiefly to the steward or bailiff of a manor, and to the reeve of a tithing or township, of a town or burgh.

If a municipal officer he had certain police duties, and represented the township in the higher local courts; if a manorial officer, he had to preside in the lord's court, collect his dues, and manage his estate. He was never a royal officer, but was either appointed by the lord of the manor or elected by the locality for which he acted.

[*Domesday.* — Cunningham's *Industry and Commerce.*] E. G. P.

PRÆSCRIPTIO, was a clause sometimes inserted at the beginning of the formula of an action for the purpose either of enabling the plaintiff to qualify his claim (*præscriptio pro actore*) or of introducing an exception to an action on the part of the defendant (*præscriptio pro reo*). After the disappearance of the formulary procedure *præscriptio* became equivalent to *exceptio* and was particularly used to signify the exception or plea of the defendant that the action against him is barred on account of its not having been brought within the period fixed for its limitation. Under the law of Justinian *præscriptio longi temporis* was a means of acquiring a good title to land on account of possession for ten or twenty years, instead of being only a defence to the possessor against the action of the owner. Hence we find *præscriptio* divided by commentators on Roman law into *præscriptio acquisitiva*, by which a right is acquired, and *præscriptio extinctiva*, by which an action may be barred owing to lapse of time (see LIMITATION, STATUTES OF; PRESCRIPTIVE RIGHT.) E. A. W.

PRATT, J. TIDD (1797-1870) English jurisconsult.

Published:—*The Savings Banks in England, Wales, Scotland, and Ireland, arranged according to counties, and the increase or decrease of . . . depositors since November 1831, with an Appendix containing all the Returns relating to Savings Banks . . . since November 1830.* (London, 1834 12mo, and 1 vol. royal 8vo, London, 1842.) M'Culloch (*Lit. of Pol. Econ.*) refers to the work as "an interesting and perfectly authentic publication." A. L.

PRECARIÆ. See PRECARIUM.

PRECARIUM, in Roman law, is a legal relation which arises when a person simply allows another, at his request, the use of a thing without entering into a contract of gratuitous loan (COMMODATUM) with him. The holder of a thing in this way has legal possession of it (see POSSESSIO), but the person who has allowed him to have it may determine the relation at his will; as, however, he does not hold under a contract he is not liable for ordinary negligence, but only for fraud or for such negligence as is equivalent to fraud. Precarium was sometimes only in form a gratuitous transaction, it being made use of to facilitate mortgages and for other business transactions. SAVIGNY suggested that precarium originated in the practice of patrons allowing their clients to cultivate pieces of the *ager publicus* which they were in possession of.

The position of a TENANT AT WILL (*q.v.*) of English law is in some respects analogous to that of the precarious tenant of Roman law.

E. A. W.

PRECIOUS METALS (DISCOVERIES OF, 1492 to 1897). In the economist's vocabulary the term precious metals is used in a different sense from that in which it is employed in chemistry, and the standard for determining the metals that belong to this class is a different one. In economic parlance "precious" has reference to value, and means that which is rare and highly esteemed, and, by adding another quality, which is quite just, we may accept the definition given in the *Century Dictionary* and say that economists have agreed to call precious metals those metals that are "valuable enough to be used as a standard of value and abundant enough for coinage." Hence in general the term includes only gold and silver.

Platinum has a theoretical claim for admission in this category because it is rare, has great value, and has been used in coinage.[1] In the year 1828 the emperor of Russia issued an edict (24th April, Russian calendar) providing for the coinage of ducats having a value of three silver roubles and a weight of 10,353 grams. which established a ratio with gold of about 1 : 3. Later, coins of larger denominations were also issued, but platinum coinage in Russia was discontinued in 1845 on account of excessive fluctuations in the value of the metal.

The discovery of America marks no arbitrary division[2] in the history of the precious metals, but, on the contrary, Columbus's undertaking owed no small part of its stimulus to the depletion of the world's stock of gold and silver, and the success of his enterprise opened up the world's largest depository of those metals. The chief importance of the date 1492 rather concerns the statistics of the production of gold and silver than the question of the relation of those metals to each other (see GOLD, SILVER).

For twenty centuries before the discovery of America there was considerable stability[3] in the ratio of gold to silver; with few exceptions the value of gold did not exceed twelve times that of silver, and during the middle ages it was for the most part under that ratio. The range of variation in all that time was not half so great as within the past twenty years.

[1] See Lexis, article "Edelmetalle" in *Handwörterbuch der Staatswissenschaften*, vol. iii. p. 1, Jena, 1892.

[2] Lindsay, *Preisbewegung der Edelmetalle seit 1850*, etc., p. 32 ff., Jena, 1893.

[3] Soetbeer, *Edelmetall-Produktion und Werthverhältniss zwischen Gold und Silber seit der Entdeckung Amerikas bis zur Gegenwart*, Ergänzungsheft No. 57 zu Petermann's *Mitteilungen*, Gotha, 1879, pp. 141 with three charts. Another of Dr. Soetbeer's contributions to this subject which he has treated more thoroughly than any one else as yet, is to be found in Hirth's *Annalen des deutschen Reiches*, Jahrg, 1875. The results of both these contributions are summed up in his *Materialien zur Erläuterung*

In discussing the ratio from 1492 up to the present time, we may conveniently distinguish three periods—first, from 1492 to 1687; second, from 1687 to 1873; third, from 1873 to 1897.

First Period 1492-1686.—This period agrees with the division made by Dr. Soetbeer, and the reason for stopping with the year 1686 is because the nature of the information, upon which our knowledge of the value of gold and silver is based, changes radically after this year. Previous to 1687 there is no record of regular, systematic, official market quotations whereby the values of gold and silver, and hence their ratio, may be followed in any one country for successive periods of time. An official circular was issued from Hamburg, the leading market of the time, commencing with 1660, which gave silver quotations, but gold was not quoted in this circular until 1687. In the first period, therefore, the sources of information consist of: (1) Mint rules and regulations which generally attempt to approximate the market ratio at the date at which they go into effect, though, of course, the real ratio may vary from the mint ratio at any subsequent time; (2) commercial account books, political essays, and reports of the time. The conclusions that may be drawn from these two sources are more satisfactory than might be at first supposed. Though they do not enable us to follow with accuracy the minute variations from year to year, we do get sufficient glimpses of isolated cases to be able to judge of the intervening movements.

The ratio of gold to silver at the time of the discovery of America was about 1 : 10·5, and had not varied much from that figure for twenty-five years previously, indeed, the variation had probably not exceeded one unit in the one hundred and fifty years immediately preceding this date, and for one hundred years after 1492 there was little change. Such as actually took place was gradual, it did not exceed one unit of divergence, and was of the nature of a rise in the value of gold. That so little change occurred is very remarkable, because great changes took place at the same time in the relative quantities of gold and silver produced; the average gold product in the twenty-four years 1521-1544 increased only 25 per cent over that for the twenty-eight year period 1493-1520 while the silver product almost doubled; comparing the sixteen years following (1545-60), when the Potosi mines gave their great yield, with the preceding period 1521-44, we find that the annual average silver product increased more than threefold, while that of gold increased very little, perhaps 15 per cent. Three hundred per cent increase in the silver product, 15 per cent in that of gold[1] and yet almost no perceptible change in the ratio! Soetbeer gives average ratio for years 1521-40 as 1 : 11·25, and for period 1541-60 as 1 : 11·30.

Whether the variation be great or small, the more difficult question to be determined is, which of the metals is responsible for the change, or whether both have varied? In the present case there seems to be some reason for supposing that gold rose slightly in value about 1550; though, if so, the rise was disregarded by the mint regulations of the time, and was perhaps limited to Germany, where so much money below standard circulated that it was necessary to tabulate the "ungarische Dukaten" and the *reichskonstitutionsmässige* thalers which remained unchanged, and give their value in other coins. These tables, quoted by Soetbeer, form a valuable source of information from which we can get at the ratios of gold to silver. Other sources which are used as a basis for determining the ratio in Germany at different periods are: a "Rechenbuch"[2] from the year 1527 with a preface dated 1489 giving several quotations indicating a ratio of 1 : 11·2; Adam Reiss's Erfurt Records[3] of 1518, which show ratios of 1 : 10·31 with same ratio quoted in successive editions dated 1529, 1533, 1578, and 1581; report of Copernicus to King Sigismund in 1526 entitled *Moneta cudendae ratio*, and reprinted in collection made by Wolowski, Paris, 1864; mint laws of 1524, Reichs Münzordnung, 10th November 1524, establishing ratio of 1 : 11·38, those of 1551 establishing the same ratio, those of 1559 changing ratio to 1 : 11·44, and those of 1566 changing the ratio again to 1 : 11·55. In 1623 the Government Council made the ratio in Germany 1 : 11·64 which was unfavourable to gold, and Soetbeer claims that the mint ratio of Lower Saxony in 1610 (1 : 12·20) was nearer the market ratio. A report to the Reichstag in 1665 claims that the market ratio was about 1 : 14·26 and another report in 1669 gives the ratio as 1 : 15·11.

As for variations in England, Soetbeer relies upon the quotations based on mint rules and quoted by Ruding.[4] These show little varia-

und Beurtheilung der wirthschaftlichen Edelmetall-verhältnisse und der Währungsfrage, Berlin, 1886. There are two English translations of the *Materialien*. One is entitled *Materials for the Illustration and Criticism of the Economic Relations of the Precious Metals, and of the Currency Question*, and was published as Appendix XVI. to the Gold and Silver Commission Report. See Blue Book, Appendix to Final Report of the Royal Commission, pp. 139-240, London, 1888. The other translation was made by Prof. Taussig of Harvard University, and published as Appendix II. to Mr. Edward Atkinson's Report to the United States Government on *Bimetallism in Europe*. See United States Consular Reports, No. 87, December 1887, pp. 435-663, Washington.

[1] See Soetbeer, *Materialien*, translated in *Report of Gold and Silver Commission*; also excellent article by Prof. E. Nasse entitled "Das Geld- und Münzwesen," in Schönberg's *Handbuch der politischen Oekonomie*, vol. i. pp. 315-378, Tübingen, 1890.

[2] *Behennde vnnd hübsche Rechnung auff allen Kauffmanschafften*, von Johannes Widman v. Eger, "Mayster in den freyenn Künsten zu Leibzig."

[3] Adam Riess's *Rechnung auf der Linihen, gemacht in massen man es pflegt tzu lern in alle rechenschulen gruntlich begriffen anno 1518, vleyssiglich uberlesen u. s. andern mall in trugk verfertigt*, Erffordt, 1525.

[4] W. Ruding, *Annals of the Coinage of Great Britain and its Dependencies*, 3rd ed. 3 vols., London, 1840.

tion from the ratio 1 : 11 for the period 1527 to 1601, but from 1605 on a rather rapid rise in the value of gold; thus 1605, ratio 1 : 12·10; 1610, ratio 1 : 13·3; 1619, ratio 1 : 13·3; 1663, ratio 1 : 14·5; during reign of William and Mary, 1 : 15·4; and 1717, ratio 1 : 15·2; Newton's report in 1717 recommended a ratio of 1 : 15·096.

Soetbeer quotes various figures taken from Holland and French records with similar results. In general, therefore, it may be said that during the 15th century and early part of the 16th, silver fell in value on account of increased production due to the Potosi mines. From about 1620 to the end of our first period (1687) there seems to have been a sudden and marked rise in value of gold combined with little change in condition of production of either metal, and therefore probably due to the growing use and demand for gold in international trade.

Second Period 1687-1873.—The second period presents less difficulty in ascertaining the market ratio, because we have Hamburg official periodical quotations for both gold and silver, and regular quotations on the London market. It is only necessary to make accurate calculations for the same degree of fineness. Dr. Soetbeer has selected from this material, as most satisfactorily representing the best market, the Hamburg quotations from 1687 to 1833 and those of London brokers from 1833 to the present time. Mr. Seyd[1] has also prepared a series of figures giving notations of the Bank of England for years 1733 to 1819. In the following table the average price of silver and the ratio to one unit of gold are given for the periods indicated[2]:—

Average for Period.	Price of silver in shillings per standard ounce.	Ratio to one unit of Gold.
1687-1690	62 1/16	14·98
1691-1700	63 1/16	14·96
1701-1710	61 1/4	15·27
1711-1720	62 1/4	15·15
1721-1730	62 1/2	15·09
1731-1740	62 9/16	15·07
1741-1750	63 1/8	14·93
1751-1760	64 3/4	14·56
1761-1770	63 1/16	14·81
1771-1780	64 3/8	14·64
1781-1790	63 7/8	14·76
1791-1800	61 1/8	15·42
1801-1810	60 7/16	15·61
1811-1820	60 3/16	15·51
1821-1830	59 11/16	15·80
1831-1840	59 7/8	15·75
1841-1850	59 9/16	15·83
1851-1860	61 3/8	15·36
1861-1870	60 15/16	15·48
1871-1875	59	15·98

Average for Period.	Price of silver in shillings per standard ounce.	Ratio to one unit of Gold.
1873	59 1/2	15·92
1874	58 5/16	16·17
1875	56 5/8	16·59
1876	52 3/4	17·88
1877	54 13/16	17·22
1878	52 9/16	17·94
1879	51 1/2	18·40
1880	52 1/4	18·05
1876-1880	52 3/4	17·90
1881	51 15/16	18·16
1882	51 13/16	18·19
1883	50 5/8	18·64
1884	50 3/4	18·57
1885	48 9/16	19·41
1881-1885	50 3/4	18·59
1886	45 3/8	20·78
1887	44 5/8	21·13
1888	42 7/8	21·99
1889	41 11/16	22·10
1890	47 3/4	19·76
1886-1890	44 7/16	21·15
1891	45 1/16	20·92
1892	39 3/4	23·72
1893	35 9/16	26·49
1894	28 7/8	32·56
1895	29 13/16	31·60
1891-1895	35 13/16	27·06
1896	[30 3/4]	[30·66]

[1] E. Seyd, *Der Hauptirrthum in der Goldwährung. Nebst kritischen Bemerkungen über Dr. Soetbeer's Schriften. Mit einer graphischen Tafel.* Rudolstadt und Leipzig, 1880.

[2] These quotations are taken from the reports of the director of the United States mint upon the production of the precious metals. This is at present the best available source for statistics on this subject. The Mint Report quotations and ratios from 1687-1832 are taken from Dr. A. Soetbeer's *Edelmetall-Produktion und Werthverhältniss zwischen Gold und Silber*, Gotha, 1879; and have been compared by Dr. S. M. Lindsay with the original to ensure accuracy. From 1833-1878 the figures are from Pixley and Abell's tables, and from 1879-1895

Examining this table for the period 1687-1873, the first one hundred and thirteen years (1687-1800) show a variation not quite equal to one unit between the highest and lowest quotations; during the following seventy-two years (1801-73) the variation was still less, being scarcely more than a half-unit. This stability is no less remarkable than that during the 16th century, because equally great changes in the production of the precious metals took place. The average yearly production of gold from 1851-60 was nearly four times that for the years 1841-50. Therefore the causes that maintained stability in ratio must be sought for in the conditions affecting the demand for the metals rather than their supply.

Third Period 1873-97.—The period since 1873 has been an extraordinary one, and never has the question of the ratio of the precious metals called forth more discussion or greater anxiety on the part of economists, publicists, and legislators, nor indeed, has there ever been so great a need of knowing the real causes that determine that ratio. The London price of silver, as quoted for the year 1873, was 59¼d. per ounce; in the month of March 1894 the price on the same market touched 27d., which means a fall of about 54 per cent in its gold price. Since then the average monthly quotations have fluctuated between 27 and 31$\frac{9}{16}$d., the highest figure reached in the period (February and June 1896), and remains in February 1897 at about 29$\frac{11}{16}$d. The ratio at the present date (February 1897) is about 1 : 31·76; for seventy-two years before 1873 the ratio did not vary one-half unit from the celebrated 1 : 15½ ratio of the Latin Union; in the twenty years since 1873 it has departed from that ratio by more than 16 units. Silver measured in gold has fallen. The following questions naturally arise: Is silver solely responsible for the great variation in the relation between the two metals, or has gold also changed? (See GOLD AS STANDARD; PRICES; SILVER.) How can such changes be measured, and is it possible to assign to each its share in the divergence of ratio? (INDEX NUMBERS.) What are the remedies proposed for maintaining a more stable ratio, and is such desirable and necessary for healthy industrial life? (BI-METALLISM; LATIN UNION; MONEY.) There has been a very great change in the respective uses of the precious metals, at least for coinage purposes, with the third period. Formerly silver was regarded very widely in Europe as well as in Asia as the metal best suited for coinage purposes, and in the early fifties there was considerable apprehension of a flood of gold and of a danger of losing silver in those countries where both metals were coined at a fixed ratio. Now the opposite fear has led to the stoppage of silver coinage, except in insignificant quantities, in all countries except China and Salvador. The great extension of silver production since 1873 is one of the chief causes. India closed her mints in 1894, and Japan is now preparing for an exclusively gold standard coinage. So Asia has also joined in the struggle for gold. The outlook for a sufficient supply to meet this increased demand is brighter now than it was a few years ago (see GOLD; SILVER).[1]

[The literature which treats of this subject is so extensive that it is only possible to add to what we have already given in footnotes some general indications. The monetary bibliographies of Jevons; S. Dana Horton; and Soetbeer, *Litteraturnachweis über Geld- und Münzwesen*, Berlin, 1892, may be profitably consulted. Then Von Praun, *Gründliche Nachricht von dem Münzwesen*, Leipzig, 1739, 3rd ed. 1784.—*Report from the Secretary of the United States Treasury on the Relative Value of Gold and Silver*, 4th May 1830.—21 Cong. 1 Session, *House of Representatives Document* No. 117, Washington, 1830.—Reprinted in Report of Interim Monetary Conference of 1878, Washington, 1879; see p. 558 ff.—*Reports of Monetary Conferences of 1878, 1881, and 1892.—Reports of Gold and Silver Commission*, London, 1887-88.]

S. M'C. L.

PRE-EMPTION, RIGHT OF. The right of pre-emption is the right possessed by one party of purchasing property before or in preference to other parties. International law allows this right to a government with respect to goods belonging to the subject of another power, which are in course of transport across its territory. But modern international law restricts this right to cases in which the goods are on their way to an enemy, and are of such a nature that, without being contraband, they would be useful to him in the prosecution of hostilities.

English law once gave the purveyors of the crown a right of pre-emption in respect of all commodities wanted for the royal household. Such commodities might be taken whether the owners wished to sell or not, at a price fixed by appraisement. This right of pre-emption gave rise to such gross abuses that it was frequently the subject of complaint in parliament, and was finally abolished by the act for the abolition of military tenures passed at the restoration of Charles II. (12 Car. II. c. 24). Under the Lands Clauses Consolidation Act 1845 (8 & 9 Vict. c. 18), a person whose land has been

from daily cablegrams from London to the Bureau of the Mint. The averages for the five year periods from 1876 to 1895 were made by Dr. Lindsay by averaging each column separately, and the quotation for 1896 was taken from the London Economist for 20th February 1897, and the ratio calculated from the usual formula $d \times w = 942{\cdot}995$, in which d= the average price in pence of an ounce Troy of standard silver (0·925 fine), and w the ratio to one part of gold.

[1] See United States Special Consular Reports, *Money and Prices in Foreign Countries*, vol. xiii. pt. i. and ii., Washington, 1896-97, for an account of the mint rules, price, ratio, etc., in all foreign countries, based on replies received from consuls in August, September, and October 1896.

taken by a joint-stock company under compulsory powers has a right of pre-emption if the company afterwards finds the land unnecessary for its undertaking, and so has to offer it for sale (see also PURVEYANCE). F. C. M.

PREFERENCE SHARES are shares in a company entitled to dividend in priority to the ordinary shares. The dividends on preference shares, like the dividends on ordinary shares, must be paid out of profits, and may not be paid out of capital; but it may be provided in the articles that the ordinary shareholders are not to receive any dividends until the arrears, if any, in the dividends of the preference shares have been cleared off. In such a case the preference shares are called "cumulative"; but if the dividend on the preference shares is payable out of the profits of each year only, they are called "non-cumulative."

As regards repayment of capital, the preference shares, in the winding up of the company, rank *pari passu* with the ordinary shares, unless the articles provide for any other arrangements. It also depends on the articles whether the voting rights of the preference shareholders differ from the rights of ordinary shareholders or not. It used to be thought that the power of a company to issue preference shares could be exercised to such extent only as the MEMORANDUM OF ASSOCIATION (*q.v.*) or the original articles authorised; but a recent decision of the Court of Appeal has established the rule that, notwithstanding the absence of authority in the memorandum, the articles of a company can at any time be altered so as to give the directors power to issue preference shares (Andrews *v.* Gas Meter Company, L.R. (1897) 1 ch. 361). In a company having a large and honest ordinary capital an investment in preference shares offers good security, and the public estimation of such a security is clearly shown by the prices at which the preference shares of English railway companies find purchasers. On the other hand, preference shares are often issued in cases in which the ordinary capital is small, or, though nominally large, was not issued against cash but against property worth a great deal less than the nominal purchase price. In such cases the issue of preference shares by which investors are made to think that they will be entitled to a fixed interest is often resorted to with the intention of obtaining money from the public where other means of doing so would be useless, and the chances of obtaining dividends is as small as if the shares were ordinary shares. The voting rights of preference shareholders are generally less extensive than those of ordinary shareholders, hence the latter exercise a more extended control over the management of their company than the former. E. S.

PREMIUM. Lat. *praemium—prae*, and *emo*, literally what one takes first or for one's self; hence, a reward.

In modern use the word has both of these meanings. In the first sense we have:—*premium*, in INSURANCE—the payment taken at once, and at intervals, to secure certain benefits either in the event of possible contingencies, or after the lapse of time. In life, fire, and marine insurance, the premiums are calculated upon plans which will be found fully described under those heads.

In the way of reward, *premium* is used to denote an amount offered by governments, or by individuals, to procure competitive designs for a building, or commemorative work of art, to stimulate invention, or to promote certain industries (see BOUNTIES). On the stock exchange, stocks and shares are said to be at a premium when their market price is higher than that at which they were originally issued (conversely, see DISCOUNT.) The market prices of new issues are generally quoted in this way, especially whilst they are being paid up by instalments, as it conveniently shows what part of the price is due to the appreciation of the stock.

In currency, when gold coins, for example, are of greater value than the notes in circulation of the same denomination, the gold is said to be at a premium. The expression, however, is apt to mislead, as it appears to indicate a scarcity of gold, when the only fact may be an over-abundance of paper (see also AGIO). R. W. B.

PRENTICE, ARCHIBALD (1792-1857):

Wrote a *History of the Anti-Corn-Law League* (2 vols., London, 1853, 8vo).—*A Tour in the United States* (London (Manchester printed), 1848, 8vo). Two of his addresses on "Temperance" were published in the *Ipswich Series of Temperance Tracts* (2 vols., 1850 (?) 8vo). In these he considered "Wages as affected by Temperance," and showed how the only remedy the artizan could have against the encroachments of capital was the accumulation of a counter instalment of capital whereby, in case of a strike or lock-out, the labourer could fall back upon his savings until the capitalists offered him the just price of his labour. But the intemperate member of the community would save nothing, and therefore was in an unfit condition to contend, and must yield without a contest.

In another lecture on "Productive Labour and Temperance," Prentice insisted that the whole labour of manufacturing and selling intoxicating liquors was labour worse than thrown away. He showed by illustrations that the money taken from four years of abstinence from intoxicating drinks could be productively employed in constructing six thousand more miles of railway; that spent in five weeks of drink would suffice to construct a ship canal from Manchester to Hull, and so on. He strongly advocated the spending of the millions of money used in drink on something that would do good and not harm. Spent in clothing, or furniture, or education, it would have a permanent and lasting effect upon the generations which followed. A. L.

PRE-ROMAN INDUSTRY IN BRITAIN.

The industrial condition of Britain before the historic period of the Roman occupation presents several points of interest to the student of industrial history, and the remains of the pre-Roman period are sufficient to enable us to gain some idea of the state of industrial development then prevailing. Traces of knowledge early developed are visible in the later history of agriculture, and it is even possible that additional light may be thrown on the origin of the manorial system from this source. At the time immediately before the Roman invasion, it is supposed (Rhys, *Celtic Britain*, pp. 213, 275) that three races inhabited Britain—the (1) aboriginal Iberians; (2) Celtic immigrants of an early invasion who amalgamated to some extent with the aborigines; and (3) Celts of a later migration in the east and south-east, known to Roman writers as Gauls. Of these races the first, the "Silures" of the Romans, lived in tribal communities (Dawkins, *Early Man in Britain*, ch. viii.) and possessed fixed habitations in the form not merely of caves, but of log-huts and wooden houses; they existed not only by the chase, but largely also on their own domestic animals. Specimens of their agricultural and other implements survive, and though made only of stone were sufficient for a variety of operations. The arts of spinning and weaving were also known to them (*Early Man*, p. 275), also those of flint-mining, pottery-making, and boat-building. Commercial intercourse existed, though only in the primitive form of barter (Solinus, c. 24), and that traffic of this kind was carried on over considerable distances seems evident from the fact that axes of jade are found in Britain, though jade is scarcely a product of Europe (*Early Man*, p. 281). In the forest clearings they grew flax and wheat (*ib.* p. 272) and kept pigs, sheep, goats, and oxen (the "Celtic shorthorn") (*ib.* p. 297). This early stage of civilisation survived in remote parts of Britain, almost unchanged, well into Roman times; but in most other parts metal implements, usually of bronze, were known, introduced possibly by the Celts of the earlier migration. The use of bronze rendered the agricultural operations before mentioned more easy, and improvement was made in house-building (*Early Man*, p. 352), harvesting, with bronze reaping hooks (*ib.* p. 360), and in spinning flax and wool (*ib.* p. 359), while the smith existed as a craftsman with a comparatively large array of tools (*ib.* p. 385). Mining was actively carried on in this epoch. The people had now left "the pastoral or migratory stage . . . had learned the simpler arts of society, and advanced towards the refinements of civilised life" (Elton, *Origins of English History*, p. 145), while "their pits and hut circles prove that they lived in regular villages" (*ib.*). The Celts or "Gauls" of the *later* migration were quite familiar with iron implements and weapons, and appear to have been unduly depreciated, as conquered races usually were by classical writers (cp. Dion Cassius, *Xiphiline*, lxxvi. 12; Claudian, *B. Getic.*, 417; Solinus, c. 4). "The British Gauls," says Elton, "appear to have been excellent farmers, skilled as well in the production of cereals as in stock-raising and the management of the dairy. Their farms were laid out in large fields without enclosures or fences, and they learned to make a permanent separation of the pasture and arable" (*Origins*, pp. 115-116). They understood marling (*ib.*), a practice implying both agricultural skill and a well-settled mode of existence. The varieties of cattle now included, in addition to the Celtic shorthorn, the kyloe or Argyll breed (*ib.* pp. 116, 117). There seems to be no trace of co-operative ploughing, as practised in the English village community in Saxon times (cp. Gomme, *Village Community*, pp. 281-284). Tin-mining was practised, and it continued into Roman times. Textile manufactures had progressed, and the use of dyes and patterns was common (Elton, *Origins*, pp. 110, 111). Neither the Roman nor Saxon invasions entirely obliterated these early races of Britain, and the influence of their industrial culture may be marked, especially in agriculture, in historic times.

[Boyd Dawkins, *Early Man in Britain.*—Elton, *Origins of English History.*—Rhys, *Celtic Britain.*—Taylor, *Origin of the Aryans.*—Gomme, *Village Community.*—Gibbins, *Industry in England* (ch. i., pre-Roman Britain)]. H. de B. G.

PRESCRIPTION.

Prescription, p. 186; Prescription (Fr.), p. 187; Prescription (Scots Law), p. 187.

PRESCRIPTION. A mode of acquiring title to incorporeal hereditaments by immemorial or long-continued use. The difference between prescription and CUSTOM is that by prescription a man can only acquire a title against a particular person, whilst by custom a title is acquired which avails against the whole world. The legal theory underlying prescription is that a man would not be left to the exclusive use of anything by the real owner for any great length of time in virtue of some previous grant; and accordingly, if a man has had such use continuously for a long time, without any one's permission and for himself alone, the law presumes that such a grant has been made by the only person that would have a right to stop him. Anciently a technical prescription was required for its establishment—proof of use and enjoyment from before the memory of man, but in the 18th century the period was fixed at twenty years, and has since as to certain rights been reduced to twelve years.

[See LIMITATION, STATUTES OF. Darby and Bosanquet, *S. of L.*, 1893—Gale, *On Easements.*—Nerril, *American and English Encyclopædia of*

Law, New York and London, 1892.—Markby, *Elements of Law*, Oxford, 1890.] A. E. S.

PRESCRIPTION (Fr.). In French law, the limit of time by which possession of property ceases to be contestable, claims are barred, and right of action lapses. The general rules of prescription are laid down in arts. 2219 to 2281 of the civil code. Certain claims are, however, not prescribable, as the capital of money in the public funds; but the interest on the sums is paid over to the state at the end of five years. Prescription may also be suspended by circumstances. The term of prescription for debts varies. Thus the claims of teachers for lessons, workmen for wages, hotel-keepers for board and lodging, are limited to six months; those of doctors for medicine and attendance, boarding-school masters, and servants hired by the year, to twelve months; of solicitors to two years from the date of the judgment or settlement of the cause, etc. The extreme time for prescription in any case is thirty years (PRESCRIPTION; PRESCRIPTION, SCOTS LAW; PRESCRIPTIVE RIGHT). T. L.

PRESCRIPTION (Scots Law). In Scotland, an action on a bill or note cannot be brought after six years, though the debt may still be proved otherwise, and in that case there is a "limitation." But after forty years there cannot be any action on the personal debt at all unless it has been kept alive by acknowledgments, payment of interest, etc., and the debt is then said to be "prescribed." The "positive prescription" is the method by which rights acquired become unchallengeable; *e.g.* continuous and peaceable possession of land or real rights in land on an *ex facie* good registered irredeemable title, without interruption, for twenty years; on redeemable titles, forty years; easements and rights of way, forty years. "Negative prescription" is the extinction of rights by lapse of time: *e.g.* the extinction of a personal debt by lapse of forty years, as above, which period may be lengthened through years of minority of parties not being counted; the right to object to a conveyance, on grounds not appearing on the deed itself, lapses in forty years; customary rights, such as vicarage tithes, lapse in forty years through a contrary usage of non-payment; the right to assert a claim to being heir lapses in twenty years after the last claim to heirship was admitted. There are also other cases in which the burden or mode of proof is generally changed; for example, an unwitnessed acknowledgment of debt in a debtor's own handwriting cannot be founded on more than twenty years after its date, but the debtor can be made to swear whether it was his writing and the signature his, and if he admit this, he must show that the debt has been discharged: tutors and curators (guardians) of a minor cannot be called to account more than ten years after their office has expired; sureties are, as a general rule, subject to many exceptions, not bound for more than seven years; bills and notes, except bank notes and post-bills, cannot themselves be founded on after six years, but the debt may be proved by some other means, including the oath of the debtor himself; arrears of rent of agricultural land lapse after five years from the tenant leaving the land; and current accounts in general can only be proved after three years by a written acknowledgment of the debtor, or by referring the truth of the matter to his oath. Many of these cases are truly examples of limitation rather than prescription; but both limitation and prescription are generally treated of under the same heading, "Prescription." A. D.

PRESCRIPTIVE RIGHT. A right acquired by lapse of time. The principle of permitting rights to be so acquired appears to be necessary in order to prevent litigation. "Possession of a certain standing," says Bentham (*Principles of the Civil Law*, pt. ii. ch. i.), "ought to be superior to all other titles" on the ground that one of the chief aims of legislation regarding property should be security.

[Sir Henry Maine, in *Ancient Law*, London, 1886, traces the growth of prescription in Roman law from which it has descended to modern legal systems.—Bentham, in the *Civil Code* (*supra*), discusses its justification.—Herbert, in the *History of Prescription in England*, London, 1891, traces the development of the doctrine in English law. For the present law in England, see Darby and Bosanquet on the *Statute of Limitations*, London, 1893 (see LIMITATION, STATUTES OF).] J. E. C. M.

PRESENT GOODS are valued higher than future goods for reasons considered under the head of DISTANCE IN TIME. . . . The depreciation of future goods is a factor in the conditions which determine the rate of interest, in the equation between present goods loaned and future goods discounted. If the depreciation of future goods become less *ceteris paribus*, the rate of interest will fall. But the depreciation is not a measure of the rate in general; it is so only on a particular hypothesis carefully defined by Prof. Marshall (*Principles of Economics*, 3rd ed. pp. 195-199, 306-307, note v. *et passim*.—Contrast Launhardt, *Mathematische Begründung der Volkswirthschaftslehre*, § 2, pp. 6, 7 (see DISTANCE IN TIME; FUTURE GOODS AND SERVICES; INTEREST, THEORY OF).

[John Rae in his *New Principles*, and Prof. Böhm-Bawerk in his *Positive Theory of Capital*, are, with Prof. Marshall, the authors who have treated the subject most profoundly]. F. Y. E.

PRESSURE, MONETARY. Monetary pressure is a term used to denote a condition of the money market (see MONEY MARKET), in which a large proportion of the persons forming the market are simultaneously desirous of borrowing money, and are ready to give abnormally high rates for the use of it. This state of

things may arise (1) owing to some temporary circumstance, such as the accumulation and "locking up" of a considerable amount of cash in the form of deposits made on application to a large loan; or the withdrawal from the market of money that has been out at "call" pending the completion of some operation for which it has been previously accumulated. (2) It arises periodically as one of the results of over-speculation, and in this case may last for some time. This form of monetary pressure is merely one of the phenomena of the normal cyclic movements of commerce (see CRISES, COMMERCIAL; CREDIT, INFLUENCE ON PRICES). Temporary pressure may and does arise, from time to time, during periods of "cheap money"; and the pressure tends to recur more frequently and with increasing intensity as the period of cheap money draws to its close, after which, for a time, the pressure becomes practically continuous, and, usually, ends by becoming acute. The rapidity with which the integration of a series of temporary states of pressure will produce acute pressure depends on various circumstances, the most important being the question whether the "locking-up" of money is permanent and therefore preparatory to its withdrawal to a foreign country, or is merely a stage in the transfer of money from one set of persons to another within the country. In the latter case the period of pressure is only momentary. If there were a large conversion of circulating into fixed capital within the country during a short period, severe pressure might arise, especially if the lock-up of capital were accompanied by speculation. No such conversion of capital has occurred in the United Kingdom on a sufficiently large scale since the railway mania of 1847-48, and it does not seem probable that a similar phenomenon will be seen again. Serious pressure is, therefore, only to be expected after the withdrawal of a good deal of capital for investment abroad. W. H.

PRESTATION (Fr.). A tax paid in kind or by a service. It now only exists in France for the purpose of providing for the construction and maintenance of communal bye-roads, etc., and as a relic of the *corvée* or forced labour that existed before the revolution of 1789. The tax was sanctioned by a law of 1824, which declared that where the ordinary resources of the commune are insufficient for the maintenance of the communal bye-roads, the municipal council may provide means by additional centimes to the four direct taxes, or by labour, not exceeding two days (since increased to three) annually, to be required from all the valid male population between the ages of eighteen and sixty, and the use of their carts, carriages, and horses. The tax may, however, be redeemed by a money payment per diem for each man, horse, or vehicle—the rate for which is fixed annually by the county council for each commune. Time, usually one month, is allowed for the inhabitant to declare that he intends to work out the tax, and in default of such notice the tax is payable in money. The municipal councils summon the *prestataires* as required, and the season chosen for work is always that when field labour is light. The charge is not unpopular, and 70 per cent of the inhabitants liable to the tax prefer to discharge it by their labour. The prestation is however only applied in the poorer rural communes where the receipts from the ordinary taxes are small and money payment would be more onerous. T. L.

PRICE, BONAMY (1807-1888). An economist, interesting for the independence of his views, and for the spirit with which he expounds them. The animating principle of his writings is, that for an economist practical instincts are more needed than speculative ability; it being understood that practical instincts do not mean the art of getting on, but the determination of conduct on a large scale in matters of commerce and taxation.

Of political economy, he says (*Practical Political Economy*, p. 2): "Its value lies in its being understood by the mass of men. . . . Its aim is to make common sense the supreme ruler of industry and trade." Common sense here includes desire for the public welfare. He attacks practical errors, or what he regards as such, with greater keenness than speculative errors. In his opinion, the banking world bestowed undue attention on the amount of gold in the country, and by comparison too little attention on the soundness of their loans. "Mercantile crises," he writes, "never have their origin in a deficiency of currency, of coin, and notes of legal tender" (*Principles of Currency*, p. 79). He expounds this thesis, in the work referred to, with great variety of illustration. He insists (*Practical Political Economy*, p. 239) on the real identity of interest between employers and their workmen, except within certain narrow limits; in his exposition of the causes which on either side assail this common interest, some will think him unduly tender to the employer; but his analysis is keen. His analysis of the free-trade question in the same volume (pp. 299-334) is acute. Speculative theory is not absent from his writings, but generally it arises through connection with some practical topic.

Bonamy Price's active life consisted of three parts. From about 1830 to 1850 he was a successful assistant master at Rugby; from 1850 to 1868 he was engaged in various ways, among these as a political writer in London; from 1868 to 1888 he was professor of political economy at Oxford. In the middle of these three periods he performed what seems to have been a signal service to the Scotch herring trade. From the year 1809 onwards the government had affixed, after due examination, a brand on the casks of herrings belonging to fishermen on the east coast of Scotland, before they were sent to the market, thus guaranteeing the soundness of their contents; and the guarantee had been found of special value in the foreign trade with Germany, etc. Objection

had been raised to this procedure; and Bonamy Price, Frederick St. John, and Captain Sullivan, R.N., were appointed by the treasury as a commission of inquiry into this and other matters. Mainly, as with great pride he used to relate in after years, through the influence of Bonamy Price, the commission gave their verdict for the brand which, he claimed, gave the small curer an equal chance with the large one; and, with slight modification, the practice has continued to the present day (see *Parliamentary Reports on Scotch Fisheries* for years 1856 and 1857).

At Oxford, Bonamy Price was held in very high esteem. Besides his professorial lectures there, he lectured in other places on political economy to large audiences, with great vivacity. His power of stimulating interest in the subject which he taught was great; and many public men and journalists were indebted to him, in their Oxford days, for their permanent appreciation of the value of political economy. His economic works, published during the last twenty years of his life, were *Principles of Currency* (1869); *Currency and Banking* (1876); *Practical Political Economy* (1878). J. R. M.

PRICE, DR. RICHARD (1723-1791), dissenting minister and writer, is, in the field of economics, chiefly remembered as the author of the SINKING FUND (*q.v.*) scheme, afterwards adopted by Pitt. The gentleness and retirement of his private character and life afforded a curious contrast to the political controversies in which he became involved. His sympathy with the American rebels first led him into the field of politics, and it was a sermon of his on the French revolution which was the immediate cause of Burke's *Reflections*. In 1769 he gained the friendship of Lord Shelburne, whose views on many questions he shared.

Dr. Price appears first to have seriously applied himself to the theory of PROBABILITY (*q.v.*) in 1761. A complete edition of his *Works*, with a memoir by his nephew, W. MORGAN (*q.v.*) was published in 1816 in 10 vols.—Vol. 1 contains memoirs.—Vol. 2, *A review of the principal questions in morals*.—Vol. 3, *Dissertations on religious subjects*.—Vol. 4, *Correspondence with Dr. Priestley*.—Vols. 5 and 6, *Observations on reversionary payments; on schemes for providing annuities for widows, and for pensions in old age; on the method of calculating the value of insurances of lives; and on the National Debt. Also, essays on different subjects in the doctrine of life annuities and political arithmetic; a collection of new tables, and a postscript on the population of the United Kingdom*, 1st ed. 1769, 6th ed. 1803, edited by W. Morgan.—Vols. 7 and 8, *Political tracts, observations on the nature of civil liberty and the justice and policy of the war with America*, 1st ed. 1776, 8vo; *Additional observations*, 1777; *An appeal to the public on the subject of the National Debt*, 2nd ed. 1772; *The state of the public debt and finances in 1783, Postscript*, 1784, *An essay on population of England*, 1780; *Observations on the importance of the American Revolution*, 1784; and *Facts addressed to the landholders*, etc. The clearest statement of his views with regard to a sinking fund is contained in *An Appeal*. After showing that the best kind of sinking fund is where the *interests* disengaged are themselves applied to the payment of the public debts, he affirms that "this kind of sinking fund, be its income at first ever so much exceeded by the new debts incurred annually, will soon become superior to them and cancel them." Thus "a state may, without difficulty, redeem all its debts by borrowing money for that purpose." Price had been anticipated in his theory by Sir N. GOULD (*q.v.*) in his *Essay on the Publick Debts of the Kingdom*, 1726, but the arguments were now put forward with incomparably greater force and persuasiveness. Price's views were controverted by Wimfrey and the anonymous author of *Considerations on the Annual Million Bill, and on the real and imaginary properties of a Sinking Fund* (both tracts are amongst *Scarce and Valuable Tracts . . . on the National Debt and the Sinking Fund*, edited by J. R. M'Culloch, London, 1857, 8vo), but little notice was taken of their arguments, and it was reserved to R. HAMILTON (*q.v.*) to prick the bubble of the theory.—Vols. 9 and 10, *Sermons*. See Preface to *Scarce . . . Tracts* as above for views as to sinking fund.

[Memoirs and works as above]. H. E. R.

PRICE AND PRICES.

Price, p. 189; Price (Rate of Wages in Cotton Trade), p. 189; Price of Gold and Silver, p. 189; Prices, History of, p. 190; Prices, History of (1850-96), p. 195; Prices and Money, p. 198; Prices, Real and Nominal, p. 199; Prices, Short Period and Long Period Supply, p. 200; Prices, Theory of, p. 200.

PRICE. The "price," is the money consideration which is given, under a contract, in exchange for the supply of commodities or services. Thus sale is defined to be the transfer of the property in a thing for a price. Therefore if goods are exchanged for goods, there is no price, and the contract is one of barter and not of sale.

By English law, when goods are supplied, or services rendered, which are intended to be paid for, but no price is fixed, a reasonable price must be paid. If the parties cannot agree on what is reasonable under the circumstances, the matter must be settled by litigation, and the tribunal (judge or jury as the case may be) then determines what is a reasonable price.

It is an inflexible rule of English law that the courts have no jurisdiction to inquire into the adequacy of a *bona fide* consideration. That is purely a question for the parties at the time when they enter into the contract. Gross inadequacy of price may be evidence of a fraud, but that is all. M. D. C.

PRICE, as meaning rate of wages in cotton trade.

The word "price" is used in the cotton trade as meaning "rate of wages." The "lists" regulating wages are called "lists of prices."

[*Regulation of Wages in Cotton Industry*, British Association Report, London, 1887.] J. E. C. M.

PRICE OF GOLD AND SILVER. The price of each metal is always quoted on the London

market at per ounce standard, *i.e.* 916·6 and 925 respectively, but delivery is made in bars either fine or differing only by a few one-thousandth parts. See also MINT PRICE OF BULLION; PARITY OF VALUE. R. W. B.

PRICES, HISTORY OF. The materials for a satisfactory history of the course of prices in ancient times do not exist; even in mediæval times, though records are more abundant, they lack the regularity and continuity which characterise modern records; and, further, the available records do not supply the facts of price-variation for any wide range, even of important commodities, till comparatively recent times. In the scattered notices of prices with which we are obliged to be content over considerable periods of history there may be preserved for us, not in every case an average price of the article concerned, but the price under more or less exceptional circumstances, and it is therefore necessary to accept with due reserve the conclusions which may be drawn from the recorded facts. The most abundant records are those relating to corn prices.

At the end of the 5th century B.C. the medimnus of wheat at Athens cost 3 drachmas, while 5 drachmas was a common price in the time of Demosthenes. Other information on the price of wheat in Greece is obtained from a statement of Plutarch, according to which the medimnus cost one drachma in the time of Solon. In Plutarch's own time the same quantity cost four times as much. In Sicily, when Verres was prætor (ca. 70 B.C.), 12 to 18 sesterces the medimnus was the price of wheat, while the higher of these prices was esteemed low at Rome in the time of Nero. Barley, in Athens, was worth about two-thirds as much as wheat, but in Sicily and Northern Italy its price did not exceed the half of that of wheat. The price of an ox varied, during the period of greatest Greek prosperity (ca. 400 B.C.), from 50 to 100 drachmas, while one-fifth of these amounts will give the variation of the price of a sheep. The comparison of the rates paid for the hire of free labour with the prices quoted for corn, gives the result that in ancient Greece a bushel of wheat might be bought with the wages of two to four days' work, according as the work was more or less skilled. In Italy wages were lower as measured in corn, at any rate in the time of Cicero, who quotes a rate at which more than five days' labour would be needed to earn the price of a bushel of wheat.

The most important record of prices in ancient times is the edict of Diocletian *de pretiis rerum venalium* of the year 301 A.D., which fixes maximum prices for goods and for labour. The interpretation of these prices into their modern equivalents is not free from difficulty. It would, however, appear that the Roman pound of gold is to be reckoned as equivalent to 50,000 denarii (Lepaulle), or 10 denarii equivalent to 1 grain of gold or two pence sterling approximately. Using this equivalence, the following are a few sample prices from the edict. The price of wheat is not given, but it may, perhaps, be taken at about double that of millet.

Prices from Diocletian's Edict A.D. 301.

Rye, per bushel	27½d.	Pork, per lb.	8d.
Millet, do.	23d.	Beef, do.	2½d.
Oats, do.	14d.	Butter, do.	5d.
Peas, do.	27½d.	Sea-fish. do.	5d. to 7d.
Salt, do.	5d.	Salt-fish, do.	2d.
Boots, per pair	22 to 44d.	Fowls, per pair	13d.
Tunics, according to quality of linen from 36s. to 180s.		Goose, each	22d.
		Oysters, per hundred	22d.

In regard to wages, the daily rates prescribed vary from 4d. for a shepherd and 5d. for other country labour, to 10d. for a smith, and considerably higher rates for painters, etc.; to all these payments must be added food. The tailor was to get 8d. to 10d. for making a cloak, the schoolmaster 10d. per month for each boy. It will be seen by comparison with the records of much later times that the level of prices indicated for the beginning of the 4th century was higher than that of succeeding centuries, and that prices did not rise above this level till quite modern times.

The material for price-history in the middle ages is enormously more abundant than for the times dealt with so far. The course of the prices of wheat and other grains and of the principal kinds of meat can be followed with tolerable continuity in several countries. The records are not, however, in general, sufficiently abundant and continuous to ensure that the averages deduced from them are truly representative prices, though it is probable that the larger fluctuations of price can be followed accurately enough. The severity of the fluctuations of prices with the seasons, which is abundantly proved by numerous records, causes solitary records of price to be assigned a weight far inferior to that which would be due to them had the seasonal fluctuations been known to be, as a rule, not extreme.

For the history of prices in England from the year 1259 onwards, the unequalled collection of records published by the late Professor Thorold ROGERS supplies invaluable material. Rogers found that the grouping of the prices which best brought out the principal movements was that shown in the table which follows. The first 140 years—to 1400—he considered together for many purposes, but the great plague in the middle of the 14th century produced a marked change, especially in the condition of the poorer classes. During the 140 years following 1400, all kinds of grain, peas excepted, were cheaper than in the second half of the 14th century. Meat became somewhat dearer, while wages maintain the advance of the preceding period and improve further. All this is in very striking contrast with the

fourth period, a period of greatly enhanced prices of commodities and but an inadequate rise of wages. The year 1540 is not the beginning of the rise, which for most commodities occurred between 1545 and 1550. The movement of prices at this time is of such importance that we venture to illustrate it in detail by directing attention to the table constructed by Rogers to show the ratios of increase in price of various important groups of articles.

Ratio (to unity) of rise of price shown by comparison of 1541-82 with 1401-1540.

I.	Live stock and poultry	2·62	
II.	Grain of all kinds	2·40	
III.	Farm produce and salt	2·58	
IV.	Labour, mechanical and agricultural	1·60	
V.	Fish	1·62	
VI.	Fuel	1·71	
VII.	Building materials and nails	1·71	
VIII.	Metals	1·88	
IX.	Linen	2·08	
X.	Clothing	2·12	
XI.	Paper and parchment	1·50	
XII.	Foreign produce, Western	2·03	
XIII.	Foreign produce, Indian	1·88	

The contrast between the rise of 50 per cent in wages after the Black Death, with but little rise in the prices of the prime necessaries of life, and the 60 per cent rise here noted at a time when the chief commodities needed by the labouring classes increased by about 150 per cent in their cost, is most striking, and the effect on the welfare of the population of extreme importance. The primary cause of the great increase of most prices must be sought in the debasement of the currency by Henry VIII., for the effects of the new supplies of precious metals afforded by America were not felt in England till after 1560. Prices had been rising before the debasement, slowly, but afterwards they rose at a startling rate, wages, as usual, rising most slowly.

Proceeding to examine the later periods, the rise of prices is seen to continue till the middle of the 17th century, after which it moderates greatly. In the sixty years following 1582, the price of various kinds of grain rose, on an average, 122 per cent on the prices of 1541-1582. Meat, poultry, and provisions rose 81 per cent; the cost of artificial warmth and light increased by 42 per cent; of the principal metals by 34 per cent; building materials 55 per cent; linen fabrics 31 per cent; woollen cloth 30 per cent; while the average rise of thirteen different classes of wages was about 33 per cent. During the following sixty years the prices of commodities advanced more slowly, while wages increased more rapidly. The further increase in grain prices was about 20 per cent only (on the prices of 1583-1642), in provisions about 40 per cent, about the same in artificial warmth and light, in metals about 18 per cent, in building materials 27½ per cent, in linen fabrics 9 per cent, in woollen 12½ per cent, but in wages 55 per cent. Even then, over the whole period of 120 years, the prices of food advanced fully half as fast again as wages, though most other articles advanced more slowly. The volumes which will contain Rogers' records for the 18th century are not yet published, so that it is not possible to carry on the record on the same basis after 1702, the earlier periods, the most representative records of wages are quoted by the piece. The time-rates selected are believed to represent fairly, so far as so limited a selection can do so, the general direction and amount of the leading end of the period treated in his fifth and sixth volumes. The table above brings together a selection from the averages he has prepared.

It must be remembered, in connection with the foregoing table, that, especially in the

English Average Prices from Roger's "History of Agriculture and Prices."

	1261-1350	1351-1400	1401-1540	1541-1582	1583-1642	1643-1702
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wheat, per quarter	5 9¼	6 1½	5 11¾	13 10½	36 1	41 11½
Barley ,,	4 1½	4 0¾	3 8¼	8 5½	19 9½	22 2½
Oats ,,	2 4½	2 6¼	2 2½	5 5¼	12 5	15 2½
Peas ,,	3 9½	3 8½	3 10	8 8	19 7	25 1½
Oxen, per head	12 0½	14 11½	20 7	70 7½	132 6½	143 10
Beef, per 14 lbs.	..	..	..	1 7	2 5½	3 5½
Sheep, per head	1 4	1 6¾	2 2¾	6 4	18 10	24 8
Hens, each	0 1½	0 2	0 2¼	0 4¾	0 11½	1 3½
Eggs, per 120	0 4½	0 5	0 6½	2 6½	3 3	3 4
Candles, per 12 lbs.	1 10¾	1 11½	1 3¾	2 7½	4 2¾	5 2¾
Salt, per quarter	3 5	6 4	4 9	10 10¾	14 6	22 4¾
Fish (cod), per 100	..	..	44 9	55 4	65 9½	85 5½
Herrings, per 1200	7 5	15 0	..	..	..	..
White herrings, per barrel	..	10 9	11 6	22 9	30 4	38 8
Firewood, per load	..	..	7 9½	11 10	18 10½	18 4½
Faggots, per 100	2 6	3 2	7 11	13 11½	..	..
Iron, per cwt.	4 1	9 5½	15 7½	26 2¾	33 11½	38 10
Canvas (coarse), per dozen ells	2 6¾	4 10¾	4 4½	7 7¾	9 5	11 4
Woollen cloth (best), 24 yards	79 8	83 2	55 8½	152 10	..	..
Choristers' cloth, 12 yards	..	..	..	45 9½	59 2¾	66 8¾
	per day	per day	per day	per day	per week	per week
Wages of Carpenter	0 3½	0 4⅝	0 5⅞	0 10	6 2¾	10 2¾
Wages of Labourer	0 2⅝	0 3⅞	0 4	0 6½	4 10	6 4¾

Note.—The figures given for "Wages of Labourer" before 1400, are those of the thatcher, probably somewhat higher, therefore, than those of the ordinary agricultural labourer, whose wages are given for later dates.

variations in the remuneration of ordinary labour, and of the labour of a skilled artisan.

To carry on the record somewhat further, we may turn to the work of Arthur YOUNG, which is quoted in Tooke and Newmarch's *History of Prices*, vol. vi. As the figures for the earlier periods which Young gives do not coincide with Rogers' averages, we extract the following table for comparison :—

Agricultural Labour in England. Average Wages per Day.

Period.	Wages per Day.	Proportions of 20.	Period.	Wages per Day.	Proportions of 20.
	d.			d.	
1200-99	4	3½	1701-66	12	10
1300-99	5½	4¾	1767-89	15	12½
1400-99	6½	5⅝	1790-1803	20	16¾
1500-99	6½	5½	1804-10	24	20
1600-99	10½	8	1811	25½	..
1700-99	15	12½	1767-1800	17	14

From the records of prices and wages before him, Young prepared a table of the comparative variations in price of a number of articles, from which the following is an abstract :—

Prices and Wages in England, 1200-1810. Comparative Statement framed by Arthur Young in 1812.

Period.	Food.			Wages.	
	Wheat.	Barley and Oats.	Beef, Mutton, Veal, Pork, Bacon, Butter, and Cheese.	Agricultural Labour.	Carpenters and Masons.
1200-99	5½	4¾	..	3½	..
1300-99	6¾	5	..	4¾	4½
1400-99	3	2¾	..	5½	5¼
1500-99	6	4¾	..	5½	4½
1600-99	9¼	8¼	..	8	7
1700-99	9¼	11½	10½	12½	11½
1701-66	7¾	7¼	7½	10	..
1767-89	11	11	11½	12½	..
1790-1803	13	16½	16½	16¾	..
1804-1810	20	20	20	20	20
1767-1800	12	11½	13¼	14	..

The way in which this table represents the facts will be clear by comparison with the preceding one, and the relation between food-prices and wages at different periods of our country's history is clearly shown by the method of comparison adopted.

For dates subsequent to 1720 the article on WAGES AND PRICES OF COMMODITIES (*q.v.*) supplies sufficient data to enable the direction of the movements to be traced as effectively as the tables in the present article permit for the earlier periods. The comparison of the figures there given with the tables quoted from Rogers and the figures of Arthur Young will afford a conspectus of the leading price-movements in this country for seven centuries.

One important consideration must be further noticed, and that is that the money in terms of which prices are quoted underwent many changes during the centuries covered by the records. The relation between the most important of the prices in our tables and silver, as summarised by Tooke and Newmarch, may serve to sufficiently indicate the course which prices expressed in silver would take. The summary is based on the records of numerous authorities, and is given as applying to France as well as to England. It is as follows :—

(1) "That prior to about the year 1350, the average annual price of wheat per quarter was about *four ounces* of silver; (2) that from 1350 to about 1520 the price was considerably lower; and during the larger part of the interval was not more than *two ounces* of silver; (3) that from 1520 to 1560 the irregularities of the coinage in England, and to a great extent in France, render it exceedingly difficult to trace the course with accuracy; (4) that all the evidence coincides in showing that the first great rise of prices, both in England and France, was about the year 1570; (5) that from 1570 to 1640 the average annual price during a large part of the interval was equal to from *six to seven ounces* of silver, or equal to a rise of 200 per cent as compared with the prices prior to 1520; (6) that after the culminating point of 1640, prices somewhat declined during the sixty years to 1700; and declined somewhat more between 1700 and 1750; but the decline during these later fifty years was certainly occasioned, not by a rise in the value of silver, but by a fall, in consequence of abundance in the price of corn; (7) that subsequent to 1750 prices of wheat considerably advanced, in consequence of unfavourable seasons, and the interruption of war."

As the purpose of the present article is not to attempt to be exhaustive, which is forbidden by limits of space, but to give a brief sketch of the general course of leading prices, it is not necessary to add the table of the silver contents of our coinage at different periods, since the above extract sufficiently describes the main movements of the price of wheat, thus giving, with the assistance of the tables of prices already quoted, the general features of the relation between silver and other principal commodities in the important periods of English price history.

For the prices of the last century, the statisticians who have constructed index numbers of general prices, have provided tables of great fulness, and also summaries of the movements of important groups of prices. The tables from which Jevons constructed his index numbers provide such records from 1782; and Mr. Sauerbeck supplies other tables for prices from 1818 onwards. The index numbers them-

selves provide the most useful summary of price movements for practical purposes. Briefly indicated they show that, from soon after the American war of independence till about 1810, there was a continuous and rapid rise of prices, amounting to over 80 per cent of the prices of 1786-89. From that point a fall, at first fluctuating, but, after the resumption of specie payments, rapid, set in. The general trend of prices since that time has been, first downward to about 1848-50, then upwards till 1873, since which time prices have again tended downwards with great persistence. These larger movements have been interrupted by the fluctuations connected with the commercial crises occurring at about decennial intervals during the century. The point reached in the downward movement of the first half of the century was some 25 per cent lower than that from which we began to trace the movement, just before the French revolution. The subsequent rise amounted to nearly 50 per cent from the low level then reached, and since 1873 a fall of nearly 45 per cent on the prices then ruling has been recorded, leaving present prices considerably below the level of 1850.

For the deviations in the movements of particular prices from this general course, reference must be made to the tables employed in constructing one or other of the leading index numbers. At the end of this article will be found a summary table of the principal movements in the best known index numbers.

For a general view of French prices, we shall refer to the admirable work of the Vicomte d'Avenel, who has collected a greater mass of information on this subject than any other writer. From his work the following table, arranged as nearly as possible so as to permit of convenient comparison with the English records given above, is derived.

Prices in France.

Period.	Wheat.	Agricultural Labour, Day Wages.	Carpenter, Day Wages.	Equivalent of Day's Wages of Agricultural Labourer.
	Francs per hectolitre.	Francs.	Francs.	In Kilogrammes of Beef.
1201-1250	3·96	0·65	..	1·78
1251-1350	6·89	0·67	0·92	2·19
1351-1375	9·00	0·90	1·17	3·33
1376-1525	4·97	0·64	0·97	3·04
1526-1575	9·50	0·72	1·07	2·60
1576-1650	17·75	0·76	1·17	1·83
1651-1700	14·75	0·80	1·10	1·83
1701-1750	12·90	0·69	0·98	1·70
1751-1790	13·91	0·76	1·02	1·44

The changes in the French currency obscure the real meaning of the price-movements, especially in certain critical periods. The author quoted supplies tables designed to enable a fair comparison to be made of the larger movements with those elsewhere. It is as follows:—

PRICES IN FRANCE.

Table of the Comparative Purchasing Power of Equal Weights of the Precious Metals at Different Periods.

Period.		Period.	
1200-25	about 4½	1551-75	about 3
1226-1300	,, 4	1576-1600	,, 2½
1301-50	,, 3½	1601-25	,, 3
1351-75	,, 3	1626-50	,, 2½
1376-1400	,, 4	1651-75	,, 2
1401-25	,, 4½	1676-1700	,, 2½
1426-50	,, 4½	1701-25	,, 2¾
1451-1500	,, 6	1726-50	,, 3
1501-25	,, 5	1751-75	,, 2½
1526-50	,, 4	1776-90	,, 2
		1890	,, 1

Hanauer's work on Alsace affords us an interesting record for further comparison from the 14th to the 17th centuries. The following is derived from these records:—

Prices in Alsace.

Period.	Wheat.	Pork.	Eggs.	Carpenter Wages by the Day.
	Francs per hectolitre.	Francs per kilo.	Francs per 100.	Francs.
1351-1400	5·17	0·31	..	1·68
1401-50	4·14	0·26	1·07	1·55
1451-1525	3·29	0·21	1·01	1·28
1526-75	6·58	0·23	1·57	1·22
1576-1625	10·78	0·41	2·42	1·30

Rye is generally quoted at about three-fourths the price of wheat.

For German prices in the middle ages we refer to Lamprecht. The values of corn, labour, etc., are expressed in grammes of silver (1 oz. troy = 31·17 grammes nearly).

In the 9th century, ordinary labour received, as daily wages, the value of 0·83 grammes of silver, while the day's food is estimated to cost 0·75 grammes. In the 13th century the malter (a measure varying in different localities) of wheat was worth 75·9 grammes of silver; in the 14th, it rises from 43 to 68 grammes, sinking to 30·3 grammes in the first half of the 15th century. We have also the following comparison between the price of a malter of rye and the daily wages of common labour:—

Prices in Germany.

Period.	Rye.	Wages.
	Grammes of silver.	Grammes of silver.
1250-1300	..	2·48
1301-50	50·37	2·60
1351-1400	61·06	..
1401-50	37·26	1·89
1451-75	26·14	1·73
1476-1500	17·74	

The rise of prices in the 16th century in Saxony is shown by the following statement

by Falke of the price of a Dresden bushel of different kinds of corn, in silver marks :—

Prices in Saxony.

Period.	Wheat.	Barley.	Oats.	Rye.
1455-85	3·07	2·32	1·27	2·33
1520-57	6·15	4·07	2·53	5·36
1558-99	12·25	5·72	3·57	9·72

A pound of beef rose from 10 silver-pfening at the beginning of the 16th century to 17½ in the middle, and 21 at the end. A journeyman carpenter or mason's weekly wages averaged 4·43 marks in the 15th century, but, in the face of higher prices of food, fell to 4 marks in the first half, and were only 4·20 marks in the second half of the 16th century.

To continue the record, we turn to Unger's figures for the price of wheat in Hanover. The measure employed is the himten (about ⅛ bushel), and the price is given in Mariengroschen (of which 36 go to the thaler). The average price for 1648-98 is 17·85 groschen, and for 1698-1748, 26·57 groschen.

Turning from this fragmentary record of German prices, we abbreviate from a record of the price of wheat in Udine. These Italian figures refer to the value in francs of a hectolitre of wheat.

Prices in Udine (Italy).

Period.		Period.	
1650-99	9·15	1800-19	24·51
1700-49	9·73	1820-49	15·03
1750-99	14·65	1850-69	19·72

In modern times the importance of the price of wheat, whether as an index of the course of general prices or as a measure of the purchasing power of wages, is far less than in the middle ages, or even than it was a couple of centuries since. To trace the course of prices in general, we need either to follow the changes in price of each of several important commodities, or, what is more convenient for the purpose of tracing the broader outlines of price-movements, to make use of an index number showing the proportionate average variation of prices from some fixed date as reference point.

The index number prepared by Jevons, combining the prices of forty commodities, will show price-variations from 1782 to 1865. Sauerbeck's arithmetic average for forty-five commodities (thirty-one before 1846) beginning in 1818, continues to the present day. After 1840 some other numbers enable useful comparisons to be made, both between index numbers prepared on different bases, and between the course of prices in different countries. The following tables give, first, Jevons's and Sauerbeck's numbers to 1839; and, secondly, various index numbers for later dates. The numbers are grouped into five-year periods, so as to show the general movement without entering into tedious detail. It is important to notice that, as Jevons used geometric means, his figures are not to be expected to compare precisely with Sauerbeck's.

Index numbers of gold prices before 1840..

Period.	Jevons's Index Number for 40 articles.	Period.	Jevons's, 40 articles.	Sauerbeck's, 31 articles.
1782-84	97	1810-14	125	..
1785-89	87	1815-19	111	132 (1818-19)
1790-94	93	1820-24	92	106
1795-99	120	1825-29	88	101
1800-1804	126	1830-34	79	91
1805-1809	138	1835-39	85	98

Index Numbers showing Relative Prices in Gold in Five-Year Intervals.

Period.	Jevons.	Sauerbeck.				Economist.	Soetbeer.		French g Exports.	United States g.		India h.
	Geometric mean 40 Articles 1782 R.D.	Total 45 Articles 1867-77 R.D.	Food 19 Articles.	Minerals 7 Articles.	Textiles 8 Articles.	22 Articles 1845-50 R.D. e	114 Articles 1847-50 R.D.	14 Articles of British Export included in preceding.	16 Articles 1861 R.D.	224 Articles Simple Average 1860 R.D.	Food 58 Articles.	5 Food Grains 1861-65 R.D.
1840-44	77	92	..	..	..	..	..	..	..	109	87	..
1845-49	71	85	90 b	85 b	71 b	100	100 e	100 e	..	103	87	..
1850-54	70	85	83	90	81	100 d	109 d	99 d	..	107	94	..
1855-59	80	98	96	104	87	103	121	101	..	108	107	..
1860-64	79	101	98	94	123	139	123	121	118	108	100	100
1865-69	78 a	100	96	89	118	141	124	133	104	119	117	129
1870-74	..	104	101	105	104	127	132	126	98	122	127	112
1875-79	..	91	97	84	84	118	125	115	82	104	106	131
1880-84	..	83	88	76	74	108	123	105	75	105	113	107
1885-89	..	70	73	71	65	96	105	97	78	98	105	138
1890-94	..	69	72	72	59	98	109 f	95 f	81 f	92 f	104 f	155
1895-96	..	62	63	63	58	89	..	..	..	..	..	..

The letters R.D. denote "reference date," and the date to which they are attached is the date at which the Index Number for each commodity composing the average is taken as 100; a, 1865 only; b, 1846-49 average; e, the actual numbers of *The Economist* (originally arranged by W. Newmarch) are divided by 22 to facilitate comparison. The figures are for 1st January of each year; d, 1851-54; e, 1847-50; f, 1890-91; g, the figures for French exports and for the United States are derived from the U.S. Senate Report on Wholesale Prices and Wages, 1893; h, from the Report of the Indian Currency Committee, p. 272; the five-year periods are 1861-65, etc.; the last figure being that for 1891, a single year. The prices of this column are, of course, rupee (i.e. silver) prices.

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For Mediæval and Modern Times (1. English price-history)—Fleetwood, *Chronicon Pretiosum*, 1707.—Arthur Young, *Inquiry into the Progressive Value of Money in England* (1812), and *An Inquiry into the rise of Prices in Europe during the last Twenty-five Years, etc.* (1815). — Tooke and Newmarch, *History of Prices*, 1793-1856.— Thorold Rogers, *History of Agriculture and Prices in England A.D. 1259-1793* (the six volumes published bring the account to 1702).—Jevons, "The Variation of Prices and the Value of the Currency since 1782," in *Journ. Stat. Soc.*, 1864 (reprinted in *Investigations in Currency and Finance*, with other valuable material for price-history).—Mulhall, *History of Prices.—Report of Gold and Silver Commission* (cp. especially the Appendix to Final Report, which contains, *inter alia*, a translation of Soetbeer's "Materialien"). (2. French price-history) — Dupré de St. Maur, *Essai sur les Monnoies, ou réflexions sur le rapport entre l'argent et les denrées*, Paris, 1746.—Leber, *Essai sur l'appréciation de la fortune privée au moyen âge, etc.*, 2nd ed. Paris, 1847.—Levasseur, *La question de l'or*, Paris, 1858.—Mantellier, *Mémoire sur la valeur des principales denrées . . . dans la ville d'Orléans au cours des 14-18 siècles*, Orleans, 1862.—d'Avenel, *Histoire économique de la propriété, des salaires, des denrées et de tous les prix en général depuis l'an 1200 jusqu'en l'an 1800*, Paris, 1894. (3. German price-history)— Lamprecht, *Deutsches Wirthschaftsleben im Mittelalter.*—Hanauer, *Études économiques sur l'Alsace ancienne et moderne.* — Beissel, *Geldwert und Arbeitslohn in Mittelalter.*—Falke, *Statistik der Preise im Königreich Sachsen* (*Jahrbuch für Nat. XIII. XIV.*).—Keller, *Zur Geschichte der Preisbewegung in Deutschland 1466-1525* (*Jahrbuch f. Nat. XXXIV.*).—Kius, *Die Preis und Lohnverhältnisse des 16. Jahrhunderts in Thüringen* (*Jahrbuch f. Nat. I.*).—Dittmann, *Die Getreidepreise in der Stadt Leipzig im XVII., XVIII. und XIX. Jahrh.* (*Mitteilungen des stat. Amts der Stadt Leipzig*, 1889).—Soetbeer, *Materialien zur Erläuterung und Beurteilung der Edelmetallverhältnisse.* (4. Austria)—Schebeck, *Kollektivausstellung von Beiträgen zur Geschichte der Preise in Wien von der Handels- und Gewerbekammer zur Prag*, 1873. (5. For Italian prices)—Cibrario, *Della economia politica del medio evo.* 2nd ed. Torino, 1842 (contains records of prices in the second half of the 13th and during the 14th centuries).—*Movimento dei prezzi di alcuni generi alimentari*, Rome, 1886.—*Movimento dei Prezzi della Derrate Alimentari*, 1585-1873. *Ministero di Agricultura*, Rome, vol. i. 1881.—Körösi, *Données pour servir à l'Histoire des Prix*, 1791-1870. (6. Other countries)—*Senate Report on Wholesale Prices and Wages*, 1893. (This report contains a collection of valuable information on prices in various European countries, as well as on American prices.) Sloet Van der Beele, *Diagramme représentant les Prix Moyens des Céréales au Marché d'Arnheim 1544 à 1869.* — Falbe-Hansen, *Hvilke Forandringer er der siden Amerikas Opdagelse foregaaet i Priserne paa Danmarks væsenligste Frembringelser og i Arbejdslønnen her i Landet?* Copenhagen, 1869.—Scharling, *Pengenes synkende Værdi belyst ved danske Aktstykker samt ledsaget af en kort Udsigt over den danske Mønthistorie*, Copenhagen, 1869.

Reference might be made to other works dealing with one part or other of price-history, but a selection of those which are most authoritative and contain the widest range of information has been made. For modern price-movements the publications of learned societies supply information. The articles of Mr. Sauerbeck in the *Journal of the Statistical Society*, 1893, and following years, may be particularly mentioned. The article "Preisgeschichte," in Conrad's *Handwörterbuch*, by Professor Lexis, should also be consulted. It has supplied much valuable information.] A. W. F.

Prices, History of (1850-1896). In discussing the history of prices the economist and the statistician refer almost exclusively to wholesale prices. Statistics of retail prices are usually accessible only for very limited geographical areas and for very short periods of time. There is a stronger reason, however, for the reliance on wholesale prices. Retail prices reflect too often the influences of custom and of the whims of particular localities, so that comparisons between articles having the same name are often fallacious and the results are not indicative of general economic changes.

In the period from 1850 to the present time transportation by land and by water has been so well developed that wholesale prices in the leading markets of Europe and America, for the chief staple commodities at least, may be considered as having followed the same general fluctuations. It matters not therefore whether we measure London prices or New York and Hamburg prices, the results are of about equal importance in indicating economic changes in all these markets.

The first series of prices to be considered are those prepared by the finance committee of the United States Senate.[1] They cover 85 articles for the years 1840-60, and 223 articles for the period 1860-91. These were distributed among the chief groups of commodities as follows:—

Group.	Number of articles. 1840-1860.	Number of articles. 1860-1891.
Food	30	53
Cloths and clothing . .	9	28
Fuel and lighting . .	1	10
Metals and implements .	12	54
Lumber and building materials . . .	15	35
Drugs and chemicals. .	15	18
House-furnishing goods .	2	15
Miscellaneous . . .	1	10
Total	85	223

[1] *Report on Wholesale Prices, Wages, and Transportation*, Washington, 1893, 4 vols.

The price quotations for these articles are in most cases actual prices for a specified date taken from the records of leading merchants and dealers in the several commodities, and for the leading markets of the United States for each particular commodity. The prices are usually those for a date in the month of January for each year unless some other month's quotations are more normal for the article in question. These actual prices were converted into relative prices, taking the single year 1860 as a base, and making the price of each commodity for that year equal to 100, and calculating those of previous and subsequent years as percentages of those for 1860—

Period.	All articles simply averaged.		Averaged according to importance in consumption.	
1840-44	108·8	Gold prices during war period.	91·0	Gold prices during war period.
1845-49	103·2		90·1	
1850-54	106·6		99·1	
1855-59	108·2		110·3	
1860-64	131·5	108·1	120·5	99·5
1865-69	178·8	118·7	182·4	120·5
1870-74	137·5	121·8	134·4	118·9
1875-79	110·9	103·8	112·9	105·7
1880-84	105·3		106·3	
1885-89	93·2		95·2	
1890-91	92·3		94·1	

In the second column of the above table the weighted average is given (see INDEX NUMBERS). This is calculated on the basis of the relative importance of the several commodities in the average of a large number of family budgets collected from all parts of the United States.

More widely known, but second in importance as to completeness and scientific value, are the price statistics published by the *Economist* on which are based the celebrated *Economist* index number. The prices given are based on one quotation for 1st January of each year, and in calculating the relative prices or index numbers the average of four quarterly quotations for the six years 1845-50 was taken as equal to 100 for each commodity. The tables of the *Economist* cover only 22 staple commodities. Averaged for quinquennial periods they are as follows :—

Period.	Average Index. 1845-50=100.
1851-54	106·5
1855-59	121·4
1860-64	141·4
1865-69	141·
1870-74	126·8
1875-79	117·6
1880-84	108·2
1885-89	96·2
1890-94	98·4
1895-97[1]	89·

[1] (Average for three years).

Mr. R. H. Inglis Palgrave, in a memorandum submitted to the royal commission on the depression of trade and industry, estimated the relative importance of the several commodities in the *Economist's* tables by weighting them according to the annual consumption of each article calculated from the statistics of production combined with the excess of imports or exports. The results are as follows :—

The average of the five years 1865-69 equals 100.

Period.	Average relative prices without regard to relative importance.	Average relative prices according to grouping of relative importance.
1870-74	96·	99·
1875-79	89·	94·6
1880-84	81·2	87·4
1885	70·	76·

The weighted figure here as in case of the weighted figure in the table given above for American prices follows the same general direction in noting fluctuations as does the corresponding figure in the unweighted column, but the weighted average stands generally several points higher than the unweighted one.

Another valuable collection of price data, also based on English market quotations, are those prepared by Mr. Sauerbeck and published yearly in the *Journal of the Royal Statistical Society*. In computing relative prices as shown in his index number, Mr. Sauerbeck has taken the average for the ten-year period 1867-77 for his base as equal to 100. He has not weighted his articles, but his results for forty-five commodities and for six sub-groups are as follows :—

Period.	Vegetable food.	Animal food.	Sugar, coffee, and tea.	Minerals.	Textiles.	Sundry materials.	Grand total.
1846-49	101·5	80·7	82·7	85·2	71·5	81·	*84·*
1850-54	89·4	74·6	83·6	90·4	81·2	90·6	*85·4*
1855-59	105·2	86·4	100·8	104·2	87·4	109·2	*98·4*
1860-64	93·	88·4	101·2	93·6	123·2	105·	*101·2*
1865-69	99·8	93·2	95·8	88·6	117·8	99·8	*100·*
1870-74	98·8	102·2	102·	118·2	103·6	102·8	*103·6*
1875-79	93·4	102·	95·6	84·4	82·	90·8	*91·*
1880-84	82·	101·2	77·6	75·8	73·8	85·	*83·*
1885-89	65·8	84·4	66·	71·	65·4	69·4	*70·2*
1890-94	63·8	82·4	70·	71·8	58·8	67·4	*63·6*
1895-96	53·5	75·2	60·5	62·5	53·	64·	*61·5*

Last but not least we must consider the Hamburg prices prepared by the Hamburg bureau of commercial statistics. They cover the prices of over 300 articles from which Dr. Adolph Soetbeer selected nearly 100, and making some additions from other data, constructed his famous index which is made the basis of so much discussion of price movements. The figures cannot be brought down farther

than the year 1888 on the same basis owing to changes of method in collecting these statistics after Hamburg entered the German customs union. Dr. Heinz, the director of the bureau, has attempted to construct a figure for subsequent years that would give an estimated basis of comparison, and his figures thus constructed down to the year 1891 are published in the U.S. Senate report. He has also constructed an independent figure on a different basis from that used by Dr. Soetbeer, and one which can be continued down to date. This is also given in an appendix to the U.S. Senate report, and is continued since 1891 in the annual publication of the Hamburg bureau.

Dr. Soetbeer's index for 114 articles and for his 8 sub-groups are given as follows; for five-year periods, which, however, do not correspond exactly with the same grouping of years which we have given in our other tables, but will serve as approximate comparisons for the periods in question:—

Average for 1847-50 = 100.

	20	22	7	19	14	7	11	14	114
Period.	Products of agriculture.	Animal and fish products.	Southern products.	Tropical products.	Minerals and metals.	Textile materials.	Miscellaneous articles.	British manufactured articles.	Articles. Grand total.
1851-55	129·99	114·79	110·43	110·97	107·03	105·20	106·65	98·47	*112·22*
1856-60	131·84	132·31	134·72	122·61	113·59	107·12	108·21	102·41	*120·91*
1861-65	124·46	128·24	114·13	118·64	102·11	131·83	144·33	127·56	*123·59*
1866-70	137·74	136·35	121·54	118·32	95·47	129·17	105·90	130·55	*123·57*
1871-75	144·90	154·57	131·50	130·72	116·90	117·17	114·98	126·44	*133·29*
1876-80	138·12	146·76	138·91	126·38	94·35	102·33	96·79	111·70	*123·07*
1881-85	130·77	150·65	134·41	119·91	81·55	96·65	91·11	103·28	*117·68*
1886-90	101·07	130·64	126·10	117·32	76·13	84·86	81·69	95·88	*104·46*
1891	119·88	131·66	139·99	113·56	84·72	80·40	85·06	95·11	*109·19*

A more minute discussion of the above data for a study of the movement of prices in the period under consideration, and of the theoretical questions involved in the arrangement of these figures according to the various plans, is not possible within the limits of this article. Prof. R. P. Falkner, the statistician for the U.S. Senate committee, has in his analysis of the tables in that report gone to great trouble to ascertain and explain the way in which these several groups of statistics were collected, and the methods used in the construction of the various tables. Dr. S. M. Lindsay has in another place discussed at greater length the theoretical methods of grouping price statistics.[1]

A few observations may be made as to the general movement of prices. In 1850 prices were high compared with the periods immediately preceding. General prices rose steadily until the panic of 1857. This was supposed to be partly due to stimulation of industry through the gold discoveries and partly due to changes in the monetary standard, due also to the increased supply of gold. From 1857 to 1862 American prices fell steadily. This was during the period following the panic, and before the effects of the civil war on industry began to make themselves felt. European prices recovered sooner from the industrial crisis in 1857, and prices continued to rise. The war in America seems to have exerted almost as great an effect on European gold prices as it did on American gold prices. The period from the close of the American war to 1873 was a period of high prices in all markets, and then there came another industrial crisis and a long period of falling prices which has been interrupted but slightly, and for very short periods, down to the present date. This continuous fall in prices has been a subject of much discussion in connection with propositions for changing the monetary standard in various countries (see BIMETALLISM; GOLD AS STANDARD; SILVER AS STANDARD; INDEX NUMBERS). This fall is the characteristic feature of the period under discussion. It seems to be contrary to all past experience. In spite of better statistical facilities for measuring it, and a more uniform basis of comparison between various markets, owing to development in transportation facilities, than probably existed in any earlier period, there is far less agreement as to the causes of this persistent downward movement in general prices. The demonetisation of silver by Germany, and later the attempt of all the leading commercial nations to establish the gold standard on a firm basis, and a corresponding distrust of silver for monetary purposes, is one reason alleged for the movement in prices since 1873. Reduced cost of production, improved processes and increase of capital, and enormous increase in the use of machinery in all lines of industry, are also causes alleged to account for these changes. Greatly reduced cost of transporta-

[1] Dr. S. M. Lindsay, *Preisbewegung des Edelmetalle seit 1850*. Jena, 1893.

tion and superior organisation of industry under the management of the joint-stock company are still other causes enumerated.

The U.S. Senate report has reduced all the above tables for statistical measurement to a common basis of comparison for relative prices based on the year 1860, which is regarded by that committee as a normal year. Considerable material has also been collected in this report on the changes in wages.

[For the best and most comprehensive collection of material on the period 1850-91 consult "Retail Prices and Wages," *Report of Finance Committee, U.S. Senate*, Washington, 1892, 3 vols.; and more particularly, "Wholesale Prices, Wages and Transportation." Report by same committee with analysis of tables by Prof. Roland P. Falkner, Washington, 1893, 4 vols.—Tooke and Newmarch, *History of Prices*, vol. vi. The last two volumes of this history are very scarce, because the history was issued in single volumes and almost the whole edition of vols. v. and vi. was destroyed by fire before any very large number had been sold. There is an excellent German translation with a good introduction and many valuable notes and additions by the translator.—*Die Geschichte und Bestimmung der Preise während der Jahre 1793-1857.* Von T. Tooke und W. Newmarch, Deutsch, und mit Zusätzen versehen von C. W. Asher, Dresden, 1859, 2 bde. For two detailed studies of special groups of commodities, see Lindsay, *Preisbewegung der Edelmetalle seit 1850 verglichen mit der der andern Metalle unter besonderer Berücksichtigung der Produktions- und Konsumtionsverhältnisse*, Jena, 1893, and W. Schultze, *Die Produktions- und Preisentwickelung der Rohprodukte der Textilindustrie seit 1850*, Jena, 1896.—L. L. Price, *Money and its Relation to Prices*, is a compact work dealing chiefly with the recent period. D. A. Wells, *Recent Economic Changes*, and Schönhof, *History of Prices*, are two books which lay great stress on improvements in production and cheapening of processes as causes of recent price phenomena. Soetbeer's *Materialien* and the *Journal of the Royal Statistical Society* are invaluable.]

S. M'C. L.

PRICES AND MONEY. It is generally admitted that the amount of the monetary circulation exercises an important influence on the level of average prices, though some contend that the influence is less direct than is commonly stated. Sir Robert Giffen has even gone so far as to state that "it is the range of prices as part of a general economic condition which helps to determine the quantity of money in use, and not the quantity of money in use which determines the prices."

It will conduce to clearness if we tabulate the leading conditions whose interaction is concerned in the case before us. They are:

(i) The quantity of money in circulation.
(ii) The amount of exchange transactions to be performed, *i.e.* the quantity of commodities to be exchanged.
(iii) The proportion of credit to cash transactions.
(iv) The rapidity of circulation of money.
(v) The average level of prices.

If variation in any one of these be produced by some external influence, one or more of the others must be correspondingly modified. If, for example, an increase or decrease in (i) be produced under circumstances which do not modify (ii) (iii) or (iv), there will result an increase or decrease in (v) proportionate to the change in (i). In general some changes in these intermediate heads will accompany changes in (i), and we can then only say that a change in the amount of money in circulation tends to produce a change in the level of prices, a large change in the one tending to a large change in the other, a small to a small; while the change in (i) may be compensated entirely by changes in (ii) (iii) or (iv), and lead in actual fact to no change in average prices resulting from the change in the amount of the circulation. To state the matter otherwise, an increase in the bulk of business not accompanied by a corresponding increase in the monetary circulation will be followed by a fall in prices except in so far as it is offset by an increase in the rapidity of circulation of money or an increased proportion of exchanges effected by means of credit.

One leading difficulty in the above statement is the interpretation to be placed on the term "money." Does it include "standard" money only, or are bank-notes included? If the latter, are all included, or only such as are convertible at sight into the standard coin by virtue of legal enactments? Should token-money be also included? Should "bank money"—the amounts held by bankers, on which cheques may be drawn at any minute, by which cheques the vast majority of purchases and sales are carried through nowadays—also be included? The case seems to call for a use of the term "money," which shall reserve it to forms of money of universal acceptance. Legal-tender money would cover the ground did not local custom often override enactments conferring legal-tender power on specific forms of money. In England gold coins and Bank of England notes would be included, since the latter may be regarded in practice, spite of the fiduciary issue, to be *representative* money, forming no augmentation of the currency, being issued against the actual deposit of the material of the standard coin.

The influence of speculative credit in raising prices for a time above their normal level, and also in enabling a varying volume of exchanges to be effected without change in the volume of currency or the level of prices, when the variation is in the main of the nature of seasonal variation, has drawn attention to this cause of changing price and led to the minimising of the effect produced by the volume of the monetary circulation. As JEVONS wrote:

"Every one who promises to pay gold on a future day thereby increases the anticipated supply of gold, and there is no limit to the amount of gold which can thus be thrown upon the market. Every one who draws a bill or issues a note, unconsciously acts as a 'bear' upon the gold market." Elsewhere he directed attention to the fact that "prices and credit mutually inflate each other," but, after carefully detailing the course of prices during an inflation and subsequent collapse of credit, reached the conclusion that "prices temporarily may rise or fall independently of the quantity of gold in the country; ultimately they must be governed by this quantity. Credit gives a certain latitude without rendering prices ultimately independent of gold."

This conclusion is in fact the only sound conclusion. Prices express the relation between the amount of commodities on the one hand, and the amount of the media of exchange available for the purposes of their circulation on the other. These media of exchange are of various forms, but their amount, though subject to extensive variation, is ultimately dependent on the amount of the monetary circulation, in terms of which values are expressed, and as substitutes for which alone other media of exchange, such as cheques, promissory notes, etc., are accepted.

A frequent objection made to the statement of the dependence of the average level of prices on the quantity of money in circulation is that the variations of different prices are by no means of equal amount, and that some prices have not fallen at all during the last quarter of a century, when on the average wholesale prices have fallen 35 to 40 per cent. As well allege that the rise and fall of the tide on our coasts is not due to the tidal waves which are produced by the attractions of the moon and of the sun. Neighbouring places have tides of vastly different heights, but all would vanish were their original cause destroyed. We have spring-tides and neap-tides according to the relative position of the crests of the lunar and solar tidal waves, and clearly due to these influences, though in some places the variation is less, in others enormously more, than in the centre of the ocean. The formation of coast lines and the location of land masses modify infinitely the observable results of one common cause, while the wind may again interfere to reduce or increase the actual movement at a given place. So also with prices: they show indefinite variety of variation due to the common influence, changes in the amount of the monetary circulation, but that they do respond to that influence can be as well denied as that the tide at London Bridge is a result of the same fundamental tide-producing causes as those which affect the tides at Teneriffe. The *intensity* of the result is modified by many and influential causes, the fact that it flows from a definite assignable cause cannot be disproved, and is far too important to be ignored. A. W. F.

PRICES, REAL AND NOMINAL. Price is a particular case of value (see VALUE). Value is the ratio at which a given quantity of one commodity exchanges for another. The value of any one commodity may therefore be expressed in terms of any one of an indefinite number of commodities. In communities which are in a very low state of civilization, trade is carried on to a large extent by barter (see BARTER); but, where civilization has made some progress, values take the form of prices, that is, they are expressed in terms of some one commodity, usually a metal, on account of its durability, divisibility, and certain other qualities (see COINAGE). In other words, values are expressed in *money* and termed prices (see MONEY).

The nominal price of a commodity at a given time and place is the number of units of money at which a given quantity of it is exchanged at that time and place. This nominal price depends, so far as wholesale transactions are concerned, on several factors, but more particularly on the state of the money market (see MONEY MARKET), the supply, actual and prospective, of the commodity, and the demand, actual and prospective, for it. For all practical purposes, having regard to short periods of time, the nominal price is the real price. But there are certain classes of economic investigations which necessitate the consideration of price in another aspect, namely, the quantities of all other articles for which any given article can be exchanged. If the nominal price of A now is the same as it was ten years ago, while the nominal prices of B, C, and other articles have fallen, the real price of A has risen; for the same amount of A will procure for its possessor a larger amount than before of other articles or services. Now, as the final object of any exchange of a commodity for money is the procuring of other commodities or services, the degree in which it is capable of affording satisfaction of the desire for them is the *real* price of the commodity. The "real" price of an article or service, in short, is its value expressed in terms of other articles or services. It should be specially noted that "real" and "nominal" prices at any given time and place are identical. It is only when comparisons are made between prices ruling at two or more dates that the difference between them, if any, becomes perceptible. Retail prices are governed to a greater extent than wholesale prices by custom, and often are far removed from the real value of the articles they represent. They follow the changes in wholesale prices slowly,

and usually are unaffected by the minor movements in the latter. But over sufficiently long periods retail transactions will be found to show approximately the same variation between real and nominal prices as wholesale transactions.

[J. S. Mill, *Pol. Ec.*, bk. iii. ch. vii.—Sidgwick, *Pol. Ec.*, bk. ii. chs. ii. iii. iv. and v.] W. H.

PRICES, SHORT-PERIOD SUPPLY and LONG-PERIOD SUPPLY. The normal supply price of many commodities may be regarded from either of two points of view, in relation to the quantity of the supply forthcoming at that price. If regard be had to the degree of difficulty in increasing the supply with such changes in the organisation of production as can be arranged at short notice, the result will be likely to be quite other than if the reference is to such adjustments of means of production to quantity demanded as require a prolonged period for their completion. If the change in demand is not expected to be permanent, the existing means of supply will not be augmented, and it is almost universally true that an increase in the amount demanded raises the short-period normal supply price. But if it is anticipated that the demand will be permanently enlarged, the means of production will be adapted to the new conditions, and it may well happen that economies rendered possible by an enlarged scale of production may be sufficient to bring about the result that the long-period normal supply price is lowered.

If an enlarged demand is expected to be permanent, it may yet be impossible to rapidly increase the means of production, and then, during the interval when the demand can only be met from former means of supply, or with imperfect adaptation of existing means to the new conditions, the effect will be similar to that of the case where no permanent change of demand is anticipated. A reduction in demand will be dealt with similarly to an increase, and if the reduction is expected to be only temporary, or if the means of production can only slowly be reduced to correspond with the new state of things, there will be, for a time, circumstances in which the supply price is determined with but little reference to permanent conditions, that is, the short-period normal supply price and the long-period normal supply price will not coincide.

These two terms have reference therefore to equilibria of demand and supply when there are taken into consideration, respectively, the immediate and temporary situation, and the situation which is produced by the gradual adjustment of productive means to more permanent conditions of demand. It need hardly be added that there is no hard and fast division between "long" and "short" periods.

[Marshall, *Principles*, bk. v. chs. v. and xii., and a paper privately printed by Mr. H. Cunynghame, *Some remarks on Demand and Supply Curves and their Interpretation.*] A. W. F.

PRICES, THEORY OF. Any theoretical discussion of price is closely allied to that of value. Values find their concrete expression in prices. Price may therefore be defined as the value of one commodity in terms of another (see VALUE). The price of a pound of coffee is theoretically a half bushel of wheat in a market where a half bushel of wheat is exchanged for a pound of coffee. In more general usage, however, price has reference to the value of a commodity expressed in terms of some general standard commodity which is used as money. Professor Hadley says: "A price is a fact. A value is an estimate of what a price *ought* to be" (*Economics*, p. 91). Hardly less subtle than the analysis of value is that which is necessary to determine the factors that enter into and explain fluctuations in price. In every economic transaction in which price enters, there are four variables which exert an influence in determining what the price shall be; the value of the commodity to the buyer, the value of money to the buyer, the value of money to the seller, and the value of the commodity to the seller. These four sets of values are each determined a separate equation of the law of supply and demand, and all four equations of supply and demand vary somewhat whenever one varies, that is, they interact on each other (see MONEY).

Price may equal the cost of production in any particular market. For commodities which require no costly machinery to produce, where no large stock of the commodity exists, where the demand is uniform and strong, and where the supply can be readily increased or diminished, the price does tend to equal the cost of production determined by the cost of producing the marginal increment consumed, or that portion of the product produced under the most disadvantageous circumstances. This is known as normal price (F. A. Walker, *Political Economy*, p. 100). Such conditions rarely, if ever, exist, and the market price is in reality a variation from the normal price due to the action of the other variables, to which reference has already been made. Auspitz and Lieben, in their painstaking inquiry into the theory of prices, and in their efforts to give their results the form of mathematical precision, accept as a fundamental proposition that the price of a commodity equals the utility of the last or marginal increment purchased, as well as the cost of the marginal increment sold.

Marshall has added to the clearness of his discussion by introducing the terms demand-price and supply-price. He states thus the law of supply and demand in its bearing on demand-price: "An increase in the amount of a thing that a person has will, other things being equal (*i.e.* the purchasing power of money,

and the amount of money at his command, being equal) diminish his Marginal Demand-price for it" (Marshall, *Principles of Economics*, 2nd ed. vol. i. p. 152). Here again, three variables are eliminated for the purpose of discussion, and only one considered. Another quotation will show his use of these terms. It is found on page 195 of the *Principles*: "As the price required to attract purchasers to any given amount of a commodity was called the demand-price for that amount, so the price required to call forth the exertion necessary for producing any given amount of a commodity may be called the supply-price for that amount." The equilibrium between demand and supply price is one of the most interesting and intricate problems of modern economics, and the one to which Professor Marshall has contributed the best discussion in bk. v. of his *Principles*.

Prices may be considered either as wholesale prices or as retail prices. Wholesale prices are much more sensitive to competition, and are, generally speaking, much more capable of being readily reduced to economic law than are retail prices. The latter are more influenced by custom, and reflect with greater emphasis the variations in consumption.

Prices are furthermore to be considered, from a theoretical point of view, as monopoly prices, when special conditions such as scarcity, legal privileges, etc., affect the equilibrium of supply and demand of the commodities offered in a given market; as panic prices, when special conditions affect the monetary standard; as luxury prices, when the value of the monetary unit is small for a given consumer; as crisis prices, when special conditions affect the seller of commodities in a falling market.

Even in its narrowest limits, excluding the prices for services and for land as belonging to other departments of economic inquiry, the theory of price must cover a very broad field. It should endeavour to explain the phenomena of price primarily in their psychological significance as a question in the balancing of final utilities where several variables are concerned. In the second place it should endeavour to account for the concrete manifestations of these psychological phenomena in the economic facts of an average market. Here it is evident that no one theory or rather no one principle can be made to explain satisfactorily all the phenomena. We find, rather, several theories explaining various groups of phenomena and dealing with various kinds of prices as enumerated above. These must be considered as collectively constituting a theory of prices. Finally, there is a third problem depending partially on economic considerations and partially on social factors, namely, the question of the stability of prices. This is really a problem in distribution, but its significance cannot be ignored from the point of view of price theory.

[All the text books on political economy treat of the theory of prices. See especially, Marshall, *Prin. of Econ.*, vol. i.—J. S. Mill, *Prin. of Polit. Econ.*—Cairnes, *Pol. Econ.*—Hadley, *Economics*. The best special treatment of the subject is found in Jevons's *Theory of Pol. Econ.* and *Investigations in Currency and Finance*.—Zuckerkandl, *Theorie des Preises*.—Auspitz und Lieben, *Untersuchungen über die Theorie des Preises*.—Wieser, *Der natürliche Wert*, and "The Theory of Value," *Annals of Amer. Acad.*, vol. ii.—Smart, *Introd: to Theory of Value*.—Böhm-Bawerk, "Wert-Kosten u. Grenznutzen," in *Jahrb. d. Nat. ökon.*, iii. Folge, Bd. iii. also art. on "Ultimate Standard of Value," *Annals of Amer. Acad.* vol. v. On the problem of distribution in relation to stability of prices, see Patten, *Dynamic Economics*, Phila., 1892, and "The Stability of Prices," *Amer. Econ. Assn. Publications*, vol. iii. (See MONEY; VALUE; PRICES, HISTORY OF.)] S. M'C. L.

PRIME: *Fr.* (1) BOURSE; (2) COMMERCE. A contract on French markets for public securities analogous to the CALL in options on English stock exchanges. The *modus operandi* is, however, different, and the converse operation of the *put* is not practised (see PUT and CALL). The *prime* is the forfeit paid by the buyer to cancel a conditional purchase at the next or second account forward. The amount of the *prime* is included in the price, which is consequently higher than that which would be paid in the case of an unconditional purchase, and the margin between the latter price and the price "*à prime*" is wider in inverse proportion to the amount of the *prime* or forfeit. Where the amount of the *prime* is small, as it forms the limit to the profit of the seller, he demands a higher price than with a large *prime* as he is more exposed, in the case of a rise, to have to buy in at a loss to deliver the stock. The *primes* for French *rentes* are 25 or 50 centimes, or 1 franc. For shares five francs or multiples of that sum. *Primes* are distinguished in bourse quotations by the addition of the word *dont* (of which) or *d.* to the price. For example, French 3 per cents, at 102 francs *dont* 25 centimes, means that the buyer may take up the stock at 102 francs or pay the forfeit of 25 centimes.

The *réponse des primes* or declaration of options takes place at 1·30 in the bourse of the day preceding the account, that is to say, on the 15th and last day of the month. The quotations at that hour are posted, and the buyer may then calculate whether it is to his advantage to make the purchase firm or pay the *prime* to cancel it. In practice the broker usually decides this for him, instructions being only necessary when the profit or loss would come out about the same either way.

(2) PRIMES (commerce) are bounties in various forms to encourage or protect native industry or production, and enable it to compete with foreign countries. *Primes de construction*

for shipbuilding date as far back as the time of COLBERT; they are a payment by the State per ton on ships built in France as a compensation for the higher cost of the materials employed, caused by the protective duties on iron and timber. *Primes de navigation* are paid per ton per thousand miles run, the coasting trade excepted. *Primes de pêche* are paid first per head of the crews employed in the cod-fisheries, to favour the recruitment of the navy, and next on the fish taken to enable French fishers to under-sell their rivals in Italy, Spain, and other Roman Catholic countries where the consumption is large. *Primes* have increased in number since the revival of protection in late years, and are granted to home producers of articles not protected by customs duties, as on raw silk, flax, and other textiles; or on shale, to countervail a reduction in the duty on imported petroleum; by a drawback on cotton yarn employed in the manufacture of certain mixed stuffs for export, even when no duty has been previously received, as when the cotton yarn is of French manufacture, etc. It is doubtful whether these *primes* have really contributed to the prosperity of French industry, but producers have succeeded in persuading the government and parliament that they could not exist without them. T. L.

PRIMER SEISIN was the right of the kings of England after the Norman Conquest to exact, on the death of a tenant-in-chief, from the heir, if of full age, one year's profits of the land in addition to the ordinary relief. It originated in the king's right to enter upon the land on the tenant's death as security for the payment of relief and as a defence against intruders. The common practice of suing for livery of seisin within a year and a day after the decease of the previous tenant would fix the period covered by primer seisin at one year. Heirs who were minors, and therefore wards of the king, did not pay primer seisin on reaching their majority; and only half a year's profits were due from a successor whose possession of the estate was subject to a life interest,—in legal language, who had the reversion expectant upon an estate for life. This charge fell into desuetude with other feudal incidents, and was finally abolished in 1660 by 12 Car. II. c. 24. A law enacted in France in 1245 by St. Louis gave the king a year's possession of the land of a deceased tenant, but only in default of relief. The papal claim to first-fruits was modelled on the feudal primer seisin.

[Coke upon Littleton, 77A.—Blackstone's *Commentaries*.—Hallam, *Middle Ages*.—Gneist, *Eng. Const.*] E. G. P.

PRIMOGENITURE. The name of primogeniture is given to the law or custom in virtue of which an eldest son succeeds either to the sovereign power or to the landed estate of his father, either in default of or to the exclusion of any testamentary disposition. The rule of primogeniture has prevailed more widely with reference to political power than with reference to property. It is obviously for the general good that the authority of a king or chief should not be liable to division on his decease, but should pass in its entirety, if possible, to an adult man. In some countries the eldest son has been passed over in favour of the eldest male of the reigning house. But this practice rests on the same reason which has usually led a people to prefer the eldest son, namely, the inconvenience of a minor's rule. There is no equally forcible reason why the estate of a private person deceased should go entirely to his eldest son, leaving the other children unprovided. Primogeniture in this sense is the exception, not the rule. It was unknown to the legal systems of antiquity and of the east. It was also unknown to the German conquerors of the Roman empire. In England primogeniture as a rule of succession to private property was unknown before the Norman conquest. Primogeniture, in this sense, is a distinguishing mark of feudalism. Under the feudal system each man's status depended on his relation to the land. Each landowner in his degree discharged definite civil and military functions, and was so far a partaker in sovereign power. As the possession of land conferred this public character, it was natural that the estate should be treated like a little kingdom, should be considered indivisible, and should go to the eldest son. The opposite principle of equal subdivision would have broken up the civil and military hierarchy in one or two generations. The government of a province or the command of a regiment does not admit of partition between the sons of a late governor or a late colonel. Accordingly the rule of primogeniture is said to have been first established with respect to the *beneficia* or grants made by the Frankish sovereigns on condition of personal service. With the progress of feudal tenure it spread over most of central and western Europe. The history of the rule in Italy, Germany, France, and Spain is far too intricate to be even summarised here. As each of these countries was broken up into territories more or less independent, and as within each territory local custom was diversified and tenacious of life, the rules of succession differed indefinitely from place to place. Even in the same district the nobles often lived under one law, the burghers under another, and the peasants under a third, so that one class might accept and another class might reject the principle of primogeniture. The revival of the Roman law affected the principle differently in different states, but upon the whole tended to weaken it. Thus on the continent the idea of primogeniture never attained universal or unqualified acceptance. In England, a small country united betimes

under a strong central government, the rule of primogeniture, once introduced by the Normans, prevailed more rapidly and completely than elsewhere. It was well established by the end of the reign of Henry III., although the old custom of equal division between all the sons (GAVELKIND) held its ground in Kent and in a few other places. But as women were incapable of personally discharging the feudal service due for their lands, the rule of primogeniture was not applied to daughters succeeding in default of sons. They took and still take equally as co-parceners. As the power to make a will of lands was lost in the feudal period of English law, the father was unable to modify the rights of the eldest son. But when the testamentary power was restored, at first by the invention of uses (beneficial interests in land distinct from the legal estate and protected by the chancellor), and afterwards by the acts 32 Hen. VIII. c. 1 and 12 Car. II. c. 24, the rule of primogeniture became merely a rule of intestate succession. There exists no law compelling the father to leave his land to the eldest son. Large estates in the United Kingdom do commonly pass undivided to the eldest son, but this is not the result of any law. It is the result of a custom of making settlements with provisions to that effect. The custom has survived to our day because the political and social importance of a family has in a great measure depended on the landed possessions of its chief. In France and in the countries subject to the influence of France, the rule of primogeniture was abolished by the revolution. The CODE NAPOLEON makes subdivision compulsory. As a political expedient in a feudal society the rule of primogeniture had its uses. As a law, or even as a custom of succession to landed property in modern times, it has been severely criticised, as (1) contrary to the feelings of justice and affection which prompt a parent to provide equally for all his children; (2) corrupting to the eldest son who obtains the whole of the estate by the mere accident of birth, and cruel to his brothers and sisters who have been brought up in affluence and often spend the rest of their lives in penury; (3) injurious to the land, which is frequently starved by the tenant for life in order to provide portions for his younger offspring; (4) discouraging to industry and thrift, inasmuch as it keeps estates few and large, thus withdrawing land from commerce and hindering the application of capital to land. On the other side it has been urged (1) that in the long run the importance of a family is an advantage to every member of that family; (2) that the proprietors of large estates are often liberal and enterprising in improvement; (3) that younger sons are often bold adventurers, and that adventurers are essential to national greatness. A law of compulsory subdivision may have bad effects in diminishing the size of properties beyond the limit compatible with high cultivation or in checking too strongly the natural increase of population. Complete or at least liberal powers of testation with a rule of equal division in case of intestacy appear to be most conducive to the welfare of a modern community. There is little doubt that the English law of intestacy will be remodelled, and that the English custom of settling all the land on the eldest son will be modified as large estates lose by degrees the attractions which they formerly possessed.

[See BEQUEST, POWER OF; ENTAIL, Law of, and authorities cited; LAND, Law relating to; TAXATION; TAXATION on Property and Income. Maine, *Ancient Law.*—Pollock and Maitland, *History of English Law.*—Digby, *History of the Law of Real Property.*—Cecil, *A Short History of Primogeniture.*] F. C. M.

PRINCE-SMITH, JOHN (1809-1874), born in London, was the son of a governor of British Guiana. He went to Germany in 1830, and employed himself there for some years in teaching English, settling at Berlin in 1846. From 1861 to 1866 he sat for Stettin in the Prussian house of representatives, and from 1871 to 1873 for a division of Anhalt in the German Reichstag. He died at Berlin.

Prince-Smith was the founder, and for a long time the head, of the German free-trade party. He was a member of the Cobden Club, and established a free-trade society in Berlin. Originality could scarcely be expected in a preacher of doctrines already fully expounded by Adam Smith, Say, and Bastiat, and popularised by Cobden and others during the English anti-corn law agitation. Those doctrines he put forward in their most absolute form. Unlimited freedom of industry was, according to him, the one condition of the economic well-being of a community, and the individual desire of gain the necessary and sufficient stimulus of economic activity. The state, he thought, had nothing to do but stand by and prevent fraud or violence from disturbing the process of social competition. He pays no attention to moral considerations or to patriotic motives, and holds that private profit implies public gain. Even those who differ most widely from these views admit that he did much useful work in connection with legislation on banks, coins, weights and measures. His entire school, too, notwithstanding its one-sidedness and its positive errors, has rendered important service by opposing the extremes of German protectionism, and by its energetic warfare against monopolies, unnecessary restrictions, and mediæval survivals.

Prince-Smith's collected writings were published in 3 vols., 1871-1880, by O. Michaelis and K. Braun, with a biographical sketch by O. Wolff.

[Lippert in *Handw. der Staatswissenschaften.*—Roscher on the German free-trade school, *Gesch. der N.-O.*, pp. 1014-20.] J. K. I.

PRINCIPAL. This word is used in popular language, and also in legal documents, to distinguish the original amount of a debt from the interest payable thereon. Thus for instance, in a transfer of a mortgage, "the said principal sum of £— (being the amount of the original mortgage debt), together with interest due or to become due thereon," is assigned to the transferee. E. S.

PRINCIPAL AND AGENT. An agent is a person who is employed to do an act on behalf of another called the principal, so that as a rule the principal himself becomes bound. That one person can represent another is a doctrine that has developed but slowly. In Roman law it was a general principle that no one could enter into a contract by stipulation on behalf of another, and in the case of mandate the mandatarius or quasi-agent incurred a personal liability towards their parties (see MANDATUM). The modern principle is that contracts entered into by an agent are regarded as entered into by the principal, provided the contract is within the scope of the agent's authority.

No special form of words is required to appoint an agent, and agency may be inferred from the conduct of the parties. An agent is required to conduct the business entrusted to him with as much skill as is generally possessed by persons engaged in a similar business, to act with reasonable diligence, to display the utmost fidelity, to keep proper accounts, and to pay over all moneys received less any expenses and his own remuneration.

Directors, managers, clerks, and servants, having power to act for their principals or masters, are agents. Besides these, the chief classes of agents are (*a*) FACTORS (*q.v.*); (*b*) BROKERS (*q.v.*); (*c*) auctioneers; and (*d*) ship masters. Each class is subject to the usages of the trade relating to the class. An agent cannot as a rule delegate his powers, but by the custom of certain trades sub-agents may be employed. The relation of principal and agent is terminated by mutual consent, by revocation, by the agent renouncing, by the expiration of the time agreed upon by the completion of the business, by the death or lunacy of either principal or agent, and by the bankruptcy of the principal.

[Evans on *Principal and Agent*, London, 1888.—Campbell on *the Sale of Goods and Commercial Agency*, London, 1891.] J. E. C. M.

PRINSEP, CHARLES ROBERT (1789-1864), translated into English J. B. Say's *Traité d'Économie Politique*. He published *A Letter to the Earl of Liverpool on the present Distress of the Country, and the efficacy of raising the Standard of our Silver Currency*, 1816. M. Blanqui (*Dict. de l'Écon. Pol.*) remarks that "this curious letter is an indispensable part of the discussion on paper money which arose in England after the events of 1814, and on the occasion of the proposal to resume payments in specie."

Prinsep also published *An Essay on Money*, (London, 1818, 8vo), of which the same authority remarks: "This writing is much and justly esteemed in England for its lucidity and its excellent exposition of the subject." A. L.

PRIOR, THOMAS (1682-1751), co-founder and secretary of the Dublin Society for promoting husbandry and other useful arts in Ireland, 1731, wrote four economic treatises on Ireland.

In *A List of the Absentees of Ireland and the Yearly Value of their Estates and Incomes spent abroad*, 1729, 2nd ed., 1729, reprinted in *A Collection of Tracts and Treatises illustrative of Ireland*, 1860-61; (the 6th, miscalled 3rd, ed., 1769, is a new book not by Prior). Prior reckoned on the debit side of the balance of trade payments to absentee landlords, employees, and pensioners, etc. The idea was taken from Sir W. PETTY, *Pol. An. of Ireland*, 1672, pp. 72, 73, 84, and *Report*, 1676, who improved on a hint from T. MUN, *Eng. Treas.*, 1664, p. 215. But Petty's results —acclaimed by Sir W. TEMPLE, 1673, and J. HOUGHTON, November 9, 1682, R. Lawrence, 1694—were guesswork. Prior, like his editor in 1769, and A. YOUNG, *Tour in Ireland*, 1779, ii. 57, made exhaustive personal enquiries, and published his items. Their results, miscited by Lecky and others, made the total drain £621,499, 1729, £1,208,982, 1769; the drain for rent £383,700, 1729, £641,700, 1769, £732,200, 1779. The so-called estimates of Swift, *Works*, 1824, vii. 40; A. DOBBS, *Essay*, 1729, p. 51; J. HELY-HUTCHINSON, *Com. Restr.*, 1779, p. 121, Faulkner (Prior's printer), and Newenham, 1805, were based on these figures, which Boulter, *Letters*, 23rd October 1729, and Dr. JOHNSON, Boswell's *Life*, 1848, p. 277, alone pooh-poohed, and on which EDEN, CAIRNES, Sir G. C. LEWIS, and Lecky, see *Hist. of Irel.*, 1892, i. 212-214, relied. This first premise of Prior's syllogism was solid: not so his second premise, which was that net exports, including baseless estimates of profits and freights, only accounted for part of the drain: and his conclusion that the rest, £240,000, was carried out in specie, thereby causing high exchange-rates and a money famine, was clearly unsound (see ABSENTEE). The money famine was a chronic disease aggravated by debased coins and the overrating of the MOIDORE, as Prior himself described in his *Observations*, and the precise effects of absenteeism were not understood until this century, *West. Rev.*, x. 237; TOOKE'S *Hist. of Prices, passim*; but it was true that exchange rates had to be abnormally high before the ebb produced the flow of money, Ireland being, as A. Young said, "cut off from the reaction of free trade," and Ireland was compelled by law to resort to the worst markets in order to pay its debts in commodities. Of Prior's two remedies a tax on absentee pensioners, etc., existed 1715-1801, but was never extended to landlords as he wished, Lecky, ii. 119, *et seq.*, and his demand, echoed from Petty, for commercial equality with England, was granted in 1779, 1782, 1800.

In *Observations on Coin in general, with some Proposals for regulating the Value of Coin in*

Ireland, 1729, reprinted by the Political Economy Club with preface by M'CULLOCH (*q.v.*) in *A Select Collection of . . . Tracts on Money*, 1856—Prior summarised Locke's theory of money, but repeated Barbon's idle accusation that Locke regarded the value of silver as immutable, and proved its mutability by an illustration which Locke, *Considerations*, 1691, pp. 34, 47, had already used for the same purpose, and objected to Locke's silver monometallism that if one mutable metal could measure value, two could; and with two standards (he does not understand the modern theory of alternative standards) there would be more coin. Like many others, Boulter, *Letters*, 25th Ap., 2nd May 1730, he wished English proportions among coins to prevail; yet his proposals made a crown worth more than ten sixpences and less than five shillings. His and Dean Swift's ultimate remedy was an Irish mint (Lecky, i. 449).

Prior's *Essay to encourage and extend the Linen Manufactures in Ireland by Premiums and other means*, 1749, advocated prizes rather than bounties, and expressed the then usual belief in patrons and paupers as industrial agents: his *Proposal to prevent the Price of Corn rising too high or falling too low by means of Granaries* differs but slightly from those of Lord Molesworth, 1723, and Dobbs, *Essay*, pp. 66 *et seq.* [These and similar schemes are discussed in *Letters of Lord Chesterfield*, ed. Mahon, iii. 175; *A Dialogue between Dean Swift and T. Prior*, 1753, pp. 116 *et seq.*; Cunningham, *Growth of Eng. Ind.*, ii. 307; Berkeley, *Works*, 1871, iv. 11, 329.] J. D. R.

PRISAGE. PRISE or PRIZE was the taking from a merchant, with or without his consent, for the king's use, of such quantity of such commodities as the custom of the time allowed. Prise, when applied to native products, was called PRE-EMPTION or PURVEYANCE, and was practised under gradually increasing restrictions till its abolition, at the restoration: when applied to imports or exports, it was called emption or caption. In the case of wine imported by denizens, the right of prise was commuted for the right to take one tun from every ship of between 10 and 20 tuns burden, and two tuns from every ship of over 20 tuns. This constitutional payment was called RECTA PRISA, in contradistinction to *mala prisa*, the old unrestricted prise, and obtained a place in the national accounts under the name of prisage or prizage of wine. Aliens importing wine compounded for the *recta prisa* by a money payment called BUTLERAGE, but were still subject occasionally to the *mala prisa*.

[Hall, *History of the Customs Revenue*, London, 1885.] A. E. S.

PRISE. See PURVEYANCE.

PRISON LABOUR. The problem of prison labour is one of comparatively modern development. Its growth is due to the gradual appreciation by society of the correctness of the view that imprisonment should not merely punish or deter, but should also reform. The appearance in 1777 of the work of John HOWARD (*q.v.*), on the *State of Prisons in England and Wales*, gave an impetus to the study of the causes of crime which has led the public mind more surely to the conclusion that not only the criminal himself but his family history and the social conditions surrounding him, have to be considered. The labours of individuals such as BECCARIA, Howard, and Jeremy BENTHAM have been taken up and carried on by schools of thought in England, by Herbert Spencer, Maudsley, and others; in Italy, by Lombroso, Ferri, and their followers; and in Germany, by Krafft-Ebing and others. There have thus been laid the foundations of something like a science of criminology, in which the resources of sociology, physiology, psychology, and the study of heredity have been brought to bear on investigations connected with crime and its causes. The natural outcome of this interest, both scientific and humanitarian, in the subject has been the prominence now given to the reformatory element in imprisonment. As soon as this element is properly recognised, the importance of prison labour becomes self-evident.

What are the reformatory agencies which can be brought to bear on prisoners? They practically resolve themselves into two, the ministrations of religion, and the provision of wholesome occupation, using both terms in their widest acceptance. The good effects of work are twofold: (1) in keeping the prisoner in habits of industry or in teaching them to him; and (2) in occupying mind and hands, and so enabling him to resist the depression which is the bane of prison life. The questions follow: What is the nature of the work which can be profitably undertaken by prisoners, and What are the special conditions affecting it? It will be convenient to treat upon these under four heads.

I. In Great Britain and Ireland the view is strongly held that prison labour should be in the hands of the state itself, and not of outside agencies. But in the United States, and in several continental countries, this view does not obtain, and three systems of employing prisoners are in vogue, (*a*) the system of direct state control, as in our own country; (*b*) the contract system, where a contractor employs prisoners at an agreed price per day, to work under his agents; (*c*) the lease system, under which a contractor leases prisoners for a fixed period, and, in most cases, undertakes to feed them and to maintain proper discipline amongst them while employed on the work specified in the lease. From the admirable report of the United States Commissioner of Labour issued in 1886 it appears that out of 64,349 prisoners, 33,290, or more than half, were employed on the contract (23,591) or lease (9699) systems. There is no space here for a full discussion of the intrinsic merits of

the three systems, but it will be enough perhaps to point out that the contract system opens the door to serious competition with free labour, and the lease system is exposed to abuses, many of them identical with those which put an end to transportation and closed the British colonies to convicts. It is certain that public opinion in England, the most thoroughly organised industrial country in the world, would tolerate neither.

II. Next to be considered are the peculiar conditions of prison life. In most countries there are two classes of prisons, for long-sentence and for short-sentence prisoners. In the former class of prisons—known as convict or public works prisons at home—the difficulties connected with prison labour are minimised. Convict prisons are situated either in the open country (*e.g.* Dartmoor), or in proximity to public works (*e.g.* Portland, Borstal, and Peterhead). After their first nine months of separate confinement—a period which seems likely to be shortened,—convicts can be placed at associated labour on public works such as breakwaters, harbours, ports, or new prison buildings, or on land-reclamation, farming, and quarrying. All convicts are so employed unless found either too delicate for hard work in the open or specially qualified for indoor occupation.

In short-sentence or local prisons the matter is more complicated. There prison labour may be of two kinds—unproductive (*e.g.* the crank or treadwheel) and productive; and the latter may be either cellular or associated, and either skilled or unskilled. Very little can be said in favour of unproductive labour, which is universally conceded to be brutalising in effect. Practically it is only retained in English prisons to carry out the provisions of the law requiring prisoners sentenced to hard labour to be kept for a month at hard labour of the first class, and as a means of punishment for offences committed within the prison. As such it is likely to be given up so soon as an efficient substitute can be devised. Whether productive labour should be cellular or associated has been a debateable point. In order to avoid contamination, prison reform has tended to keep prisoners so far as possible from intercourse with one another. Almost all modern prisons, at home and abroad, are therefore built on the cellular principle. But for purposes of labour, associated workshops have obvious advantages over cells. Work and the appliances for it—*e.g.* machinery, can be of a far more elaborate and therefore educational character, and the effect on the mind of work in company with others, even though general conversation be forbidden, is healthier. As to contamination there is the experience of associated labour in convict prisons to show that the danger can be obviated. The consideration of the whole question is tending in England to the general adoption of a salutary compromise whereby prisoners shall have their meals and sleep in separate cells, but shall work in associated workshops under strict supervision.

Further difficulties are the fact now universally conceded that prisoners are below the average in mental and physical capacity, and the shortness of the term which many of them have to serve. On 6th March 1894, out of 14,582 prisoners in English local prisons, 3383 were in for four weeks or less, and 7024, or nearly half, for three months or less. All these would not be unskilled workmen, but prisoners have a natural inclination to conceal their trade, and it is possible a man may serve the whole of his term without its being discovered what is the trade to which he could be set without preliminary instruction. Besides skilled labour there must thus be provided in prisons the means for rough unskilled labour, rising from oakum-picking or stone-breaking, and the like, to sack and mat-making.

III. There follows the danger of competition with free labour. This, statistically viewed, is less important than is sometimes imagined. The danger is largely a sentimental one, but is none the less deserving of consideration on that ground. The annual value of the labour in English local prisons, *including* the domestic services of the prison, is estimated at less than £120,000, which is clearly an infinitesimal proportion of the trade of the country. Certain industries are practised in English prisons; comparing the numbers of prisoners employed in them with the census number of persons engaged in the like occupations outside, and reckoning the amount of a prisoner's work to be but half that of a free workman, the proportion stands as one prisoner to 1886 free workmen, or, with all possible developments of prison labour in the future, as one prisoner to 1587 free workmen. In the United States the Commissioner of Labour estimates the competition in particular trades as much higher, but reckons a free labourer to be worth 1·27 prisoners, not two, as in the proportion which forms the basis of the calculation in the preceding sentence. Perhaps in individual trades at home, specially suited for prisons and not largely engaged in outside, *e.g.* mat-making, the amount of competition is appreciable. But the fact remains that the average annual value of an English convict's labour is not estimated at more than £27, nor of a local prisoner's at more than £8. The Austrian estimate is not higher than £3 per head for the three years 1889-91.

The attitude of trades unions to prison labour has been somewhat misunderstood. No doubt, as in the case of mat-making, particular trades have imagined that their interests were menaced, and have done their best to abate certain industries. But at the

Trades Union Congress at Belfast in 1894, a proposal to condemn industrial work and training in reformatory and industrial schools was rejected. Authoritative trades union opinion seems to be in favour of the industrial training of prisoners, and not to object to the sale of prison-made goods, for the relief of taxation, provided (*a*) that they are not sold below market prices, and (*b*) that every consideration is paid to the special circumstances of particular trades outside the prisons.

In order to minimise undue competition with free labour the principle has been generally adopted of directing the energies of prisoners so far as possible to the construction of public works and the supply of articles required by the prison service itself or other departments of government. Thus, long-sentence prisoners in England built Wormwood Scrubs Prison, Portland breakwater, and the Chatham forts, and short-sentence prisoners have helped to meet the demands of the Post Office for belts, pouches, mail-bags, and the like, of the Admiralty for coal-sacks, hammocks, baskets, mats, etc., of the War Office for bed and bolster-cases, rugs, oil-cans, etc. Here of course what the country loses in wages it gains in relief of taxation. The surplus of articles is sold, care being taken not to sell below market prices, nor to make any particular article in such quantities as to disturb the equilibrium of the market into which it enters.

It is, perhaps, right to mention here that complaints have been rife in England for some time that the importation of prison-made goods from Germany and other countries has seriously depressed the market for the same goods at home. The extent of the mischief, whether appreciable or not, was so much canvassed that in the first session of 1895 a departmental committee of the Board of Trade was appointed to investigate the subject. Its report was to the effect that no cause had been shown for the necessity to take steps to restrict the importation of prison-made goods, and that if cause were shown no steps could be taken which would not produce more harm than good. Nevertheless, there is reason to believe that negotiations have been entered into with foreign governments in order to check if possible a competition which, slight or severe, is objectionable in itself. Of exportation as a means of disposing of prison-made goods practically no use is made in this country.

IV. The fourth consideration is twofold; to what extent should prison labour be directed with a view of making the prisoners pay for their own maintenance, and to what extent should prisoners receive money payments for their work. It is clear that in a system whose main end is the reform of the prisoner, the desire to make pecuniary profit out of his labour will hold no place inconsistent with the primary object. Regard will not be had as to whether or no a saleable article will be produced, but the prisoner will be set to such labour as is most likely to fit him for earning an honest livelihood after discharge, or is most suited to his physical or mental condition. But as a matter of practice, the two run very much together, and most of the work to which it is desirable and possible to set prisoners results in the production of saleable articles. A compromise must be effected, and the natural desire to find the state a fair set off against the cost of the prisoners' maintenance must be held in check. Herein subsists one of the main arguments in favour of the direct control of prison labour by the state, for pecuniary profit is far less likely to become the main object under that system than under either the contract or lease systems. As to whether prisoners should receive pay for their work or not, general opinion is in favour of granting them gratuities proportioned to their industry. The objects are of course to encourage the prisoner to work and to secure to him a bonus against the day of discharge; and care should be taken that the amount of the gratuities is not larger than is necessary to fulfil those objects. Even in so developed a prison system as that of England this question has not received the attention it deserves. At present the maximum which a local prisoner can earn is 10s.—a sum adequate neither as a spur to work nor as a bonus. In most foreign countries larger gratuities can be earned, but there prisoners are allowed to spend a portion of their earnings in procuring creature comforts, better food, coffee, and even in some cases cigarettes, from the prison canteen. Such a disposal of prisoners' earnings is not tolerated in England, and probably on the whole rightly so.

In conclusion it may be useful to direct attention to the care which has recently been devoted in this country, under the auspices of government, to the consideration of the questions treated of in this article. An important departmental committee of the home offices published a report in 1895 (see reference below), in which the subject of prison labour is dealt with exhaustively. The spirit in which that committee approached the question is modern, but, after all, not more modern than Jeremy Bentham, who said: "Occupation, instead of being the prisoner's scourge, should be called, and be made as much as possible, a cordial to him. It is in itself sweet in comparison with enforced idleness; and the produce of it will give it a double interest. The mere exertion, the mere natural energy, is amusement, when lesser ones are not to be found. Taken in this point of view, industry 'is a blessing; why paint it as a curse?'"

[In addition to the works of the writers mentioned in the text, reference may be made to

Sir E. Ducane, *Punishment and Prevention of Crime*.—Dr. Mouat's paper on *Prison Ethics and Prison Labour*, read before the Royal Statistical Society, 17th March 1891, to the report of the United States Commissioner of Labour, issued in 1886, and to the following official papers—*Prison Committee's Report with Appendices* (c. 7702 and c. 7702 I.), 1895—*Report of Departmental Committee on Habitual Offenders in Scotland with Appendices* (c. 7753 and c. 7753 I.), 1895—*Report of Departmental Committee on Importation of Foreign Prison-Made Goods* (c. 7902), 1895; and *Foreign Office Commercial Series*, No. 8 (1894), reports on prison labour in certain foreign countries. — Foreign Prison-Made Goods Act, passed 1897.] J. G. L.

PRIVATE INTERNATIONAL LAW. See INTERNATIONAL LAW, PRIVATE.

PRIVATE PROPERTY. See PROPERTY.

PROBABILITY AND CALCULUS OF PROBABILITIES. Probability means a greater or less degree of credibility. The probability of an event is measured by the frequency with which it has occurred in past experience. Thus the probability of an ace turning up when a die is thrown is one-sixth, since it has been observed that in the long run one side of a die turns up about once in six times (Venn, *Logic of Chance*), and other regularly-shaped bodies present analogous proportions. From statements of frequency given by experience the calculus of probabilities deduces, often by a long chain of mathematical reasoning, statements of frequency—affording measurements of credibility—which could not easily be proved by experience. Thus, if it is given that when a coin is tossed heads turn up as often as tails, it is deducible that, when a hundred coins are tossed, it is hardly credible that as many as seventy of them should present heads. The odds against such an event are many thousands to one. It is more than an even chance that the number will be between forty-six and fifty-four inclusive. The calculus of probabilities may be similarly employed to give confidence in the uniformity of our results in many statistical problems which concern economics; in particular the determination of the average variation of prices, and the average variation of wages (Bowley, "Changes in Average Wages," *Journal of the Statistical Society*, 1895; see arts. ALEATORY; ERROR, LAW OF; INDEX NUMBERS; TABULAR STANDARD).

[Of the two elements distinguished by Laplace in his definition of *Probabilities* as "good sense reduced to calculation," the latter is more prominent in most of the treatises, the former is found in the greatest purity in Laplace's *Essai Philosophique sur les Probabilités*—bound up with his severely mathematical *Théorie Analytique des Probabilités*, and in Dr. Venn's *Logic of Chance* (3rd ed.). Prof. Karl Pearson, in his *Grammar of Science*, explains with authority the foundations of an edifice which he has elsewhere contributed to raise. The definition and evidence of probability are examined in an article on the "Philosophy of Chance" in *Mind*, 1894, by Prof. Edgeworth. Some applications of the calculus to affairs are suggested by him in his book entitled *Metretike*, 1887, and in an article "On Some Applications of the Calculus of Probabilities" in *Journal of the Statistical Society*, September and December 1897 (pt. i., Bimetallism; pt. iv., Elections).] F. Y. E.

PROBATE. When an executor of a will has any occasion to assert his right as executor he must show that he has proved the will, which he does by producing a copy of it, called the probate, sealed with the seal of the court of probate. The probate is legal evidence of the will. Scotch and Irish probates may be resealed in England, and then have the same effect as if granted in England.

[Williams, *Law of Executors and Administrators*, 19th ed., 1893.] J. E. C. M.

PROCÈS VERBAL (FR.). An official report drawn up by a public officer or administrative agent to testify to acts or to infractions of the law witnessed by him or of which he has cognisance, and which may serve as a basis for ulterior proceedings. The officer or agent can only *verbalise* relative to acts within his competency; as, the rural policeman for trespass, poaching, etc.; the customs or excise officer for frauds on the revenue; the notary for inventories, the placing of seals, etc.; the bailiff for the service of writs or to declare the absence of parties, etc. The *procès verbal* must contain a brief statement of the facts with the date and signature, written on stamped paper, if on blank paper it must be registered for stamping, the duty being included in the costs. Minutes of the meetings or proceedings of associations, companies, legislative or other bodies, are called *procès verbaux*. T. L.

PROCLAMATIONS nowadays may be termed administrative or executive orders issued in accordance with law by the privy council in the name of the sovereign; but in earlier times, particularly under the Tudors and Stuarts, in the 16th and 17th centuries, they were used to supplement legislation and perhaps occasionally to supersede it. According to the spirit of the times, economic and financial matters were often the subject of royal proclamations: alterations of coinage under Henry VIII. and Edward VI.; exportation of money and other commodities, cultivation of wood, regulation of dress, under Elizabeth; increase of London and manufacture of starch under James I.; fixing of prices and interference with tradesmen and artisans under Charles I.—all these and many other subjects, besides ecclesiastical and political affairs, were dealt with by the royal power acting by advice of the council, independently of parliament and often without reference to common or statute law.

[Proclamations were like the earlier ordinances in council. Gneist (*Const. Hist.*) makes no dis-

tinction between the two.—Coke, *3rd Inst.*, 162. — Blackstone, *Commentaries*, 270.— Rymer.— Clarendon, *Hist. of the Great Rebellion.*—Hallam, *Const. Hist.*—Gardiner, *Hist. of England.*—Stat. 31 Hen. VIII.—Stat. 40 & 41 Vict. c. 41 (for publication of proclamations).—*A booke of Proclamations*, 1603-1612. The most complete list of proclamations is that in Earl Crawford's privately printed *Handlist*, 1509-1837, 2 vols. fol.] E. G. P.

PROCURATION BY SIGNATURE (BILLS OF EXCHANGE). By § 25 of the Bills of Exchange Act 1882, a signature by procuration (*e.g.* p.p. Smith and Co., John Jones) operates as notice that the agent has but limited authority to sign, and the principal is only bound by such signature if the agent in so signing was acting within the actual limits of his authority. Where the agent indorses a bill in excess of, or without, authority, the indorsee acquires no title, but in the case of a demand draft drawn on a banker, the paying banker is protected by § 60 as he would be in the case of a forged indorsement. [Chalmers, *On Bills of Exchange*, ed. iv. p. 375.] M. D. C.

(MERCANTILE USAGE GENERALLY.) It is common practice among bankers and merchants in all parts of the world to appoint managers with full powers to incur obligations on behalf of their employers, and authorised to represent the latter in all business transactions. German mercantile law recognises this custom by giving a special name, "prokurist," to persons occupying such a position, but the signature with the letters p.p. (*per procuration*) in front of the firm name of the employers, is used in all civilised countries. In English law, and according to the law of some continental countries, the powers of a person occupying the above-described position are not in any way defined, and the employer may in any given case dispute his liability on the ground that the manager had been acting in excess of his powers. The German mercantile code provides (§ 42) that the "prokurist," who must be registered as such in the mercantile register, has power to transact on behalf of his principal any business of a mercantile character, not including transactions for the sale and mortgage of real property, and that (§ 43) a restriction of these general powers has no effect on third parties. To persons not familiar with mercantile usage these provisions seem very far-reaching, but any one accustomed to business transactions, in the city of London or elsewhere, will know from experience that signatures "per procuration" have constantly to be accepted without question or inquiry as to the powers of the persons so signing, and if it were generally known that the binding character of the signatures so given might at some future time be disputed by the principals, more eagerness would be shown for an alteration of legal rules which honest traders will not take advantage of, but which are liable to be abused by unscrupulous persons. E. S.

PRODIGUS. According to Roman law, if a person of full age spent his property in a reckless manner, the magistrate might, on application being made to him, interdict such spendthrift from administering his property, and assign the care of it to a curator, as in the case of a lunatic. As to modern instances of this practice, see INTERDICTION. E. A. W.

PRODUCE and the group of words derived from it, of which Product, Production, Productive, and Unproductive are the chief, cannot strictly be said to have been first used as technical economic terms by the PHYSIOCRATS (*q.v.*). CANTILLON (*q.v.*), writing long before QUESNAY (*q.v.*), speaks of "proportioning the production of merchandise and commodities to their consumption" (*Essai sur la nature du Commerce*, p. 38), and Adam SMITH, lecturing before he had come under physiocratic influences, shows how "division of labour occasions a multiplication of the product, or, which is the same thing, how opulence arises from it" (*Lectures*, p. 163). But the discussions which have given the words their importance in economic terminology, have their starting-point in the *Tableau Économique* (see QUESNAY; PHYSIOCRATS). In this the community's expenditure is divided into *dépenses productives*, devoted to agriculture and procuring raw materials; *dépenses stériles*, devoted to manufactures, commerce, payment of domestic service, etc., and *dépenses du revenu*, or rent, which might be divided between the two other classes of expenditure in various proportions. The productive expenses were so called because they alone were supposed to be annually reproduced with a *produit net*, *revenu*, or rent in addition, while the sterile, or, as Adam Smith translates it, unproductive expenses, had to be provided for out of the *reproduit total* to which they contributed nothing. Hence came the theory that agriculture and kindred extractive industries alone were productive, and that manufactures, commerce, domestic service, etc. were unproductive, being mere exchanges (see besides the *Tableau* itself; reprinted for the British Economic Association 1894, *Œuvres de Quesnay*, ed. Oncken, pp. 537, 538).

Adam Smith, for the reasons which he gives in *Wealth of Nations*, bk. ii. ch. iii. and bk. iv. ch. ix., saw the fallacy of this view so far as regards the labour of "artificers, manufacturers, and merchants," but not as regards menial service and other labour which does not "fix or realise itself in any particular subject or vendible commodity." Consequently in the *Wealth of Nations* the "annual produce of the land and labour of the society" which constitutes its real wealth (Introd. and Plan, *ad fin.*), formally at any rate, consists only of "particular subjects or vendible commodities," and does not include any of the comforts and enjoyments of the community which are created by labour directly and not through the medium of such objects. The produce is therefore not equivalent to the sum of the incomes of the

individuals constituting the society, since every individual's income, reckoned by any known method, includes satisfactions created by the labour described as unproductive.

This doctrine of Adam Smith never obtained much hold on the continent of Europe. His translator GARNIER rejected it (note xx.). His faithful disciple and populariser, J. B. SAY, got rid of it by the simple expedient of dividing produce into material products and immaterial products, according as it is created by Adam Smith's productive or by his unproductive labour (*Traité*, liv. i. ch. xiii.). In England MALTHUS, though rather half-heartedly, adopted Smith's view (*Political Economy*, p. 28). James MILL seems to have accepted it without question (*Commerce Defended*, p. 69). J. S. MILL enthusiastically supported it with all possible arguments in his youthful *Essay on the words productive and unproductive*, the substance of which was afterwards incorporated in his *Principles*, bk. i. ch. iii., and his popularisers have followed him (*e.g.* FAWCETT, *Manual*, bk. i. ch. iii., Symes, *Political Economy*, pp. 25, 26). But even here the weight of authority has always been overwhelmingly on the other side. The author of the article "Political Economy" in the 4th ed. of the *Encyclopædia Britannica*, though himself "rather disposed to adhere to the doctrine of Smith," admitted that "the most eminent writers" of the time disagreed with him. M'CULLOCH showed the fallacy of the doctrine in an effective passage of his *Principles*, pp. 406, 407. T. CHALMERS considered it not only unsound from a scientific point of view, but practically pernicious (*Political Economy*, ch. xi. *ad init.*). SENIOR criticised it with destructive effect, showing that whether we regard labour as performing a service or producing a commodity is a question decided by the most trivial considerations (*Political Economy*, 8vo ed., pp. 51-53). Prof. Marshall, though he thinks that it is probably better that the distinction between productive and unproductive "should dwindle gradually out of use rather than be suddenly discarded" (*Principles*, 3rd ed. bk. ii. ch. iii. § 2, note), makes no use of the modification of J. S. Mill's doctrine which he proposes, and substitutes "social income" or "national dividend" for the "annual produce" of the older writers. In the national income he includes the creation of "unproductive" as well as of "productive" labour (*ib.* ch. iv. § 13).

[Most of the passages referred to will be found collected together in Cannan, *Hist. of the Theories of Production and Distribution*, 1893, ch. i. § 7. LOCKE generally speaks of the "products of land" in a way which cannot be regarded as technical; but in one place (*Considerations*, 2nd ed. 1696, p. 121) he places the producer in antithesis to the consumer in a manner very suggestive of modern usage.] E. C.

PRODUCE CLEARING. There can be no doubt that the application of the bankers' clearing system to the settlement of transactions in produce is largely, if not entirely, a consequence of the abnormal fluctuations in exchange, and the great decline of prices characteristic of the period since 1873. It has been an attendant condition of the development of transactions in "futures" and "options" (see FUTURES and OPTIONS). This system of dealing is an extension of methods long characteristic of operations on the stock exchange. Speculation in produce, analogous to speculation in securities, is of course at least as ancient as the time of Joseph; its fundamental economic utility has always been the averaging of the supplies of good crop years with the supplies of lean crop years, a comparative steadiness of prices and the prevention of scarcity or famine being the consequences. Under the relatively stable monetary conditions preceding 1873, such speculation was rather due to the foresight and statistical studies of individuals, than characteristic of any trade as a whole. Speculative operations in commodities were financed by the great capitalists who conceived them, or by credit based on their wealth, and they were, so to speak, quite occasional operations. But in recent years the system of buying for distant requirements, instead of being merely a method of taking advantage of present abundance and consequent relative cheapness, with the hope of profit during a period of scarcity and relative dearness, has become mainly a system of "hedging," to use a term of the turf, against quite incalculable changes in prices no longer governed mainly, if at all, by the relation of supply and demand. The increasing separation of the capitalist from the ENTREPRENEUR, or employer of labour, itself a consequence of the increasing uncertainties of trade, has also made it more and more necessary for the latter to adopt the safeguards of the "book-maker" on the race-course. Trade has become subject to influences as remote from the essential conditions and factors of the particular branch of industry and commerce undertaken by the producer or distributor, as explosions, fire, or pestilence; and these new contingencies have not the comparative rarity which makes even such catastrophes as those mentioned more or less calculable factors. Even explosions or shipwrecks, occurring at long if uncertain intervals, may be provided against by a guarantee or insurance fund. But the daily or even hourly fluctuations of exchange defy forecast. The possible loss by explosion or shipwreck is a known quantity; but under the new conditions the possible range of an exchange fluctuation, and therefore the possible loss, are incalculable. Hence the owner of accumulated capital has become less and less

disposed to risk its loss in industry or trade, and more and more disposed to prefer the safer, if possibly less princely, income of the *rentier* and the mortgagee to that of the producer or merchant. The fall of prices, by increasing the purchasing power of fixed incomes, or the capital value of bonds, has encouraged this tendency. Thus the business of the producer, and to a large extent of the distributor, has tended to pass into the hands of men whose chances of success, from the exercise of their personal abilities as employers of labour, have exceeded their risk of loss from the disappearance of the mere margin of capital, as compared with the whole capital, invested by them in their undertakings. Such men have manifestly less staying power than the great capitalist employers of former days, and, therefore, they are the more constrained to minimise risks by *per contra* purchases or sales of "futures" or "options." The narrowness of profits in the great manufacturing industries, again, has in many instances encouraged the extension of such operations beyond the requirements of the particular business carried on, in the hope of snatching profits by re-sales, so that the manufacturer has become a speculative dealer in raw materials as well as a consumer of such materials, and seller of finished fabrics. The incessant fluctuations of the rates of exchange, and the consequent almost daily variation in the price relations of the various stages of the industry, have made "hedging" operations an almost daily necessity, the same individual both buying and selling "futures" on the same day in order to guard against any eventuality. For all these reasons the number of transactions, the overwhelming majority being merely book entries which ultimately cancel each other, has been enormously increased, the volume of figures being vastly beyond the sum representing the value of the produce actually transferred in the end. This huge multiplicity of transactions has necessitated the establishment of produce clearing-houses for minimising the accountancy labour and payments involved; otherwise the practicable limits of such operations would have been reached long before their present magnitude had been attained, and further expansion would have been checked.

In this country the development of the system seems to have been mainly restricted to Liverpool and London. There is no produce clearing-house in Glasgow, for instance. Glasgow, in regard to wheat and sugar, is mainly what is called "a consumer's market," and such speculative business as is done in those commodities is conducted through Liverpool or London. The "warrant" system in the Glasgow iron trade, though developed largely as a means of economy in handling and warehousing pig-iron, does, however, present points of resemblance to the produce clearing system. It affords the producer a means of financing; it enables the user of pig-iron, as a material, to cover his future requirements and to "hedge" against variations in prices; and it facilitates speculation, pure and simple, in the material. The brokers or their representatives meet every day to "adjust differences" with each other, though payments are not made through a clearing-house, but directly between the brokers. In the Liverpool corn trade the produce clearing system is more fully developed, and an important function of such organisations, that of fixing what may be regarded as market prices, comes into observation. Every contract is registered and numbered by the Corn Trade Association, and each day at specified times, 10.30 A.M., 3.15 P.M., and 4.15 P.M., prices are officially declared by call from a rostrum. The call at 3.15 is taken as the "striking price" for settlement. Settlements are effected through a clearing agency which notifies buyers and sellers each morning of the "difference" to be received or paid on each contract. In this case the system unquestionably seems to present a more purely speculative aspect than in some other cases, and in regard to wheat, more than any other commodity, it has been urged that the influence of the system is injurious to the producer as tending to depress prices irrespective of natural conditions. This view has been definitely adopted by the agrarian party on the Continent, and has already resulted in repressive legislation. It seems probable, however, that, as for every "bear" seller there must be a buyer, who is relatively a "bull," the "differences" will in the long run be earned by that one of the two who most accurately forecasts the actual conditions of demand and supply; and, therefore, that the permanent tendency is to fulfil the legitimate function of speculation, the equalisation of prices and supply in spite of crop variations. The fact that for a considerable period prices have tended downward, which fact forms the basis of the agrarian complaint against dealings in "futures," may be explained as due to some other decisive influence. In other words, "bear" operations have invariably been most successful, not because they have caused prices to fall, but because they have been in harmony with the operation of some dominant depressing cause. Though there is some speculation in sugar in Liverpool, the "ringing out" or "set-off" system appears to be very slightly developed there in regard to this commodity. Contracts are mainly with the local sugar refiners, and are directly settled on maturity; there is no clearing-house. It is in the cotton trade that the system has attained its greatest development, and where its justification by economic conditions is perhaps most apparent (see CLEARING SYSTEM; COTTON CLEARING). The position of the cotton manufacturer is indeed in many respects exceptional. The large amount of capital invested in a mill equipped to the high degree of efficiency which has become absolutely essential to the existence of the industry under the conditions of extreme competition and almost theoretically perfect organisation which have been developed, and the extreme delicacy of the machinery, make it impossible for the cotton-mill owner to stop production without ruinous loss. Irrespective of the loss of interest on borrowed capital now very largely employed in the cotton industry, the position of the mill-owner is analogous to that of the carrier by horse-traction. The latter must keep his animals fed whether there is any remunerative work for them to do or not, or they will die; and the former must keep his machinery running or it will rust and speedily become valueless. There would be as ruinous a loss of capital if the machinery were not "fed" with cotton, in the one case, as there would be if the draught horses were not fed with corn in the other. Partly owing to this condition, and partly to the great magnitude of the trade, the number and variety of the markets—each with its special seasonal variations—supplied throughout the world, and their great distances in many instances, there is no industry so liable to occasional and even prolonged divergence of the prices of the raw material and of the finished or partly finished productions from what may be described as a parallel course, as the cotton industry. On the one hand, there may be very wide variations in the huge crops of raw material required, owing to climatic conditions, and on the other, there may be equally wide variations in the demand for the enormous supply of yarns and cloths continuously produced, owing to variations in the economic conditions of the many countries and dependencies supplied. Then, again, owing to the necessity of keeping up steady supplies of well-known goods in particular great markets, or large seasonal supplies which require time for production and for carriage long distances, a system of mercantile contract-

ing for deliveries of goods for many months ahead has come into vogue. For all these reasons there is no industry or trade so much at the mercy of fluctuations in the monetary exchanges. Thus, it will be seen that the cotton spinner or manufacturer has, in the first place, to cover his future requirements of cotton merely to feed his machinery; in the second place, he has to cover his contracts for the future delivery of yarns or goods of particular kinds requiring different descriptions of cotton; and he has also to secure the particular kind of cotton needed for the occasional day-to-day orders he may obtain. Finally, he must as far as possible safeguard himself against quite abnormal variations in the selling prices of any stocks he may have accumulated brought about by entirely erratic variations in the monetary exchanges. The system of dealing in "futures" enables him, at least to some extent, to meet these necessities of his business. Not only can he take the favourable opportunity for securing an adequate supply of a staple description of material in advance, but by repeated purchases and sales of "futures" as the months pass by he may "hedge" against price variations, and at the same time vary the particular descriptions of cotton originally contracted for in accordance with variations in the details of the particular orders for yarns or goods he receives. Thus the organisation for dealings in "futures" not only enables the spinner or manufacturer to provide in advance for a still unknown variety of requirements, but saves innumerable transfers of cotton from warehouse to warehouse, or mill to mill; while the arrangements for clearing "differences" by setting one against the other saves innumerable payments. It may be mentioned that the "striking" prices are fixed by a committee every Monday at 11 A.M., the organisation thus acting as a kind of fly-wheel in regulating the movements of the market.

The influence of the abnormal conditions affecting prices which were unknown before 1873, and which have induced the enormous development of "futures" dealings in the cotton trade and the establishment of a special cotton "clearing" organisation, is clearly traceable in the establishment of the London produce clearing-house in 1888, and the expansion of its business. The fact that the primary object of the last-named institution is declared to be the guaranteeing the fulfilment of contracts for future delivery to both buyer and seller, in itself suggests that the organisation had its origin in a recognition of the necessity for some system of insurance against the new and extreme uncertainties introduced into business by the violent fluctuations of the exchanges. Contracts in this case are only accepted from brokers authorised by the produce clearing-house, and in consideration of the guarantee the brokers undertake to do their "forward" business exclusively through that institution. Deposit margins have to be maintained in the possession of the clearing-house, but settlements may be and frequently are arranged directly between the buyer and seller of the contract, and every contract is ultimately closed by the delivery of actual produce. Brokers who desire to join the organisation must be proposed and seconded by members and on admission pay an annual subscription, and official quotations are fixed every working day by elected committees, representing respectively the dealers in each commodity. The dealings now embrace coffee, sugar, wheat, maize, tea, and silk, the produce most affected by the fluctuations of the monetary exchanges. The addition of dealings in silver is especially significant. It cannot for a moment be supposed that the business of the silver-smith makes "future" dealings in the raw material of the industry a necessity in the sense in which dealings in cotton "futures" have become a necessity. Variations in the price of a precious metal do not affect the prices of the finished manufactures either as promptly or to anything like the same extent as variations in the prices of the raw materials of the great wholesale or "massen," to borrow an expressive German term, industries; nor is the silversmith called upon to provide for the continual employment of a large plant for long periods ahead. The circumstances of his industry permit him to adopt what is known as the "hand-to-mouth" policy in buying his materials—that is, to restrict his purchases more or less closely to his immediate requirements; and any speculation in which he may indulge is rather a question of securing an extra profit than a question of "hedging." The seasonal character of the production of food-stuffs such as coffee, sugar, and grain, puts the distributor of those products in a position in some respects analogous to that of the great mill-owner in regard to providing for future requirements. The farmer or planter must dispose of his crop as rapidly as possible after the harvest, partly because it must be collected in the great centres of distribution if it is to be distributed at all, for the individual consumer cannot be brought, except to a very limited extent, into direct relations with the individual producer, and partly to put himself in funds for the production of the next crop. On the other hand, the wholesale distributor must, broadly speaking, at the particular time when the crop comes into the market, secure supplies to meet a demand spread over the whole period between crop and crop. He also must endeavour to assure himself against ruinous fluctuations in prices which experience has taught him may occur from causes outside mere statistical considerations. Experience has shown further that there is a certain correspondence between the rise or fall of the gold price of silver and the rise or fall of the gold prices of produce. Hence a buyer of produce "futures" may "hedge" by selling silver "futures"; or the banks which guarantee exchange may also to some extent cover themselves by operations in silver. This is not the place to enter into a detailed analysis of such operations. The fact that, notwithstanding the closing of the Indian and Japan mints to the coinage of silver, dealings in silver "futures" continue, is a proof that silver bullion is still very largely used for the settlement of international balances and the adjustment of international exchanges—in short that, though without coinage, it continues to fulfil a true monetary function.

To sum up, produce clearing-houses are the visible and necessary machinery for the system of dealing in "futures" and "options" as applied to merchandise, the tendency of which is to give a certain average steadiness to prices for limited periods and to provide a means of mutual assurance against incalculable risks, such insurance being based on the "hedging" or compensation-balance principle. The system is imperfect and costly from the strictly economic point of view, and it unquestionably gives rise to very grave abuses. But it seems probable that, had it not been for its evolution from the necessities of the case, the abnormal variations of the monetary exchanges through the break-up of the international monetary system existing before the closing of the French mint against silver, would have made the continuance of international trade, and the existence of certain great industries which are dependent on such trade, practically impossible.

[CLEARING SYSTEM; CONDITIONING; FUTURES; GRADING; OPTIONS; PUT AND CALL; SETTLING DAY; Reports, or. gen. meetings of *London Produce Clearing-House.*]

F. J. F.

PRODUCERS' GOODS, called also Production Goods, Instrumental Goods or Intermediate Goods, are those which satisfy wants *indirectly* by contributing towards the production of other goods. The term is used in opposition to CONSUMERS' GOODS, or consumption goods, or goods of the first order, which satisfy wants *directly*. The distinction was first given by J. B. SAY (*Cours de l'Économie Politique*, pt. i. ch. xii.); it has been developed by Hermann, and still further by C. Menger (*Volkswirthschaftslehre*, ch. i. § 2), who distinguished goods of the 2nd, 3rd, and higher orders. But even the original distinction which Say made is not always easy to apply; and the line of division is drawn in different places by different writers. On the whole, it seems best to include in "production goods" any form of wealth which can only be utilised through a further expenditure of economic labour. Thus it includes (1) all raw and unfinished materials, even those otherwise *finished* goods which are in the hands of dealers and are only utilised through the labour of shop-attendants and conveyers; (2) implements and buildings used in any form of indus-

try. If personal goods—personal qualities—are not explicitly excluded, production goods would also include all those individual or social qualities, habits, and relations which conduce to industrial efficiency. The distinction between production and consumption goods has a very important bearing on questions regarding the scope of the term CAPITAL (*q.v.*), and on methods of estimating the wealth of a nation.

[Marshall, *Principles of Economics*, vol. i. 3rd ed., pp. 133, 134.—Sidgwick, *Principles of Political Economy*, bk. i. chs. iii. v. See also articles on GOODS, CLASSIFICATION OF.] W. E. J.

PRODUCERS' RENT. The controversies that have arisen in regard to the relation between COST OF PRODUCTION and the RENT OF LAND used in production have led to the view that the remuneration of *any* agent of production whatever often contains, temporarily or permanently, an element similar to the RENT of land. To this element the name "producer's rent" or "producer's surplus" has been given. Producer's rent is regarded as a surplus remuneration accruing to any agent of production which is in excess of the amount sufficient to call forth the supply of that agent. The conception of producer's rent plays an important part in the modern theory of DISTRIBUTION; but writers are by no means agreed as to its precise nature. It has been elaborately examined by Professor Marshall, who has pointed out certain analogies between the relation of producer's rent to supply-price on the one hand, and that of CONSUMERS' RENT to demand-price on the other hand. The same writer has further distinguished between rent and quasi-rent. The most important application of the doctrine of producer's rent arises in the theory of the incidence of TAXATION. If a tax, levied over a certain area of taxable commodities and for a certain period of time, lowers the remuneration of any of the agents of production, without raising the price of the commodities, then it may be said that, within that area and for that period, the remuneration of those agents is of the nature of producer's rent. Or conversely, if any remuneration can be shown, as limited above, to be a producer's rent, a tax, similarly limited, will fall upon the rent owner.

[All modern discussions of the Theory of Distribution include references to Producer's Rent.] W. E. J.

PRODUCTION.

Production, p. 218; Production and Consumption, p. 213; Production, Cost of, p. 216; Production, Instruments of, p. 216; Productive (the terms), p. 216; Productive and Unproductive Labour, p. 217; Productivity of Capital, p. 220.

PRODUCTION (or, in full, THE PRODUCTION OF WEALTH), as the title of one of the great departments into which economic treatises divide political economy, seems to have appeared first in the *Traité* of J. B. SAY (*q.v.*), which consists of three books on production, distribution, and consumption respectively. In using the title, J. B. Say was probably influenced by the heading of book i. of the *Wealth of Nations*, in which the productive powers of labour and the distribution of its produce are mentioned. James Mill, in 1821, adopted Say's division of the subject (with the addition of "Interchange") in his *Elements*, and in the same year Col. R. TORRENS wrote his *Essay on the Production of Wealth*. Since that time the use of the title has been almost universal.

Say's book on production begins by describing the process of production, then deals with circumstances favourable or unfavourable to production, such as the institution of property, commerce, state-interference, and colonisation, and finally treats of "a particular product which plays a great part in the formation and circulation of wealth—namely, money." Torrens's *Essay* on the subject is equally comprehensive, and the same may be said of part ii. in M'CULLOCH'S *Principles*, 1825. But James MILL, by his plan, not followed by M'Culloch, of giving a separate place to interchange or exchange, and putting it after distribution, deprived himself of the power of describing under production the means by which the production of wealth is actually carried on, and consequently, even in the second and later editions of his *Elements*, and still more in the first edition, the chapter on production is small and fragmentary. English writers subsequent to James Mill and M'Culloch have generally been inclined to follow James Mill's example by keeping a consideration of exchange out of their treatment of production, which has often reduced itself to a collection of observations about the three requisites or agents of production—labour, land, and capital.

[Cannan, *Hist. of Theories of Production and Distribution*, chs. ii.-v.] E. C.

PRODUCTION AND CONSUMPTION. Wealth, as the term is used in political economy, denotes all those useful goods that are so limited in quantity as to possess value. By the production of wealth is meant the creation of the useful qualities, *i.e.* the utilities of such goods. It is easy to distinguish two requisites of wealth production: (1) the materials provided by nature; (2) human exertion, indispensable in the production of all wealth except the crudest. It is possible to conceive a limited supply of useful commodities due entirely to the bounty of nature, and therefore produced without human exertion. They would constitute wealth. But for ordinary purposes some degree of human exertion may be considered requisite. The term "land" is used by economists instead of the more general term "materials," for the reason that under existing legal institutions it is only through land-ownership or rental that possession can be obtained of natural materials or access gained

to natural forces. The function of land in production is to furnish standing-room for the productive processes, and to furnish as materials for production all those objects for which science can discover any useful application, but which do not owe their present form, position, or qualities to human exertion. Land, as a requisite for production, thus includes building sites, natural soils, beds of minerals, atmosphere, water-courses, and all the other natural products that together constitute, or are in contact with, the crust of the earth.

New discoveries constantly point to new uses for objects which had been comparatively worthless, and increased population constantly makes new demands on the surface of the earth for mere habitation. As a consequence the absolute importance of this primary requisite of wealth production increases with the growth of population and social progress. But the relative importance of land as a productive agent tends to decrease. So long as we recognise only the two factors, land and human exertion, it is evident that the changes which bring about an increased quantity of wealth in a country which has once been fully occupied are due chiefly to the modifications in the forms of human exertion. In primitive stages of civilisation human welfare depends almost exclusively on the extent to which nature provides objects suitable for the supply of man's wants. But the expression "human exertion" is a complex term which must be resolved into simpler elements. Under the primitive conditions to which reference has just been made, it is virtually equivalent to muscular labour. This labour force, directed either instinctively or by the low degree of intelligence necessary, is expended directly upon objects desired for consumption. When fruit, fish, or game is abundant, it produces much wealth. When they are scarce, great labour is necessary to produce sufficient wealth for the bare support of life.

In the course of industrial progress two features of human exertion are gradually developed, which render such exertion, considered as a whole, a much more complex factor in the production of wealth and greatly to augment its importance. The first of these is the rise of CAPITAL. The second is the change in the forms of industry due to enterprise. "Capital" is a term used to designate the results of all industry except those final acts in the series of productive processes which transform an unfinished into a finished product. Under primitive conditions nearly all labour is engaged in the production of PRESENT GOODS, *i.e.* commodities fitted for immediate consumption. In later stages only a relatively small proportion of the available labour is so utilised. Much of it is engaged in the production of commodities which do not directly satisfy human wants, but will be useful in further production. In a certain sense they are unfinished or future goods. A plough, a reaper, a flour mill, an oven, are all so, in one sense, equivalent to many loaves of partly-made bread. These capital goods are useful only in view of the goods for the ultimate production of which they are themselves brought into existence. In the modern industrial world the relative quantities of these capital or FUTURE GOODS is much greater than in earlier stages of industry. They indicate that human exertion is now more efficiently expended. The productive series cover a longer period and imply the expenditure of much labour long in advance of the enjoyment of its results. This does not involve at any point an absolute diminution in the quantity of present goods. On the contrary, since the growth of capital is gradual, there is naturally both an ultimate and a contemporaneous increase of goods fit for immediate consumption. Human exertion and land, the primary productive agents, are now increasingly efficient because, through the use of capital, a given amount of labour will produce more wealth from the same materials. Capital thus comes to be considered a third requisite of production. While goods classed as capital are like other commodities, produced by human exertion upon natural materials, they differ from commodities fit to supply human wants directly, in that their sole function is to aid further production.

Earlier economists usually thought of capital as a fund saved by the exercise of personal abstinence from consumption, and used chiefly to support the labourers during the period in which they are engaged in any particular production. The more recent tendency is to view capital, not as a fund saved from consumption, but as a natural development of the productive process. Capital appears, not because consumers have denied themselves pleasures which they might have enjoyed, but because producers have begun to exert their energies in a more efficient manner. The capital goods are increasingly prominent in highly-developed industrial society only because its production is increasingly complex and indirect, each series increasingly extended and interwoven with other series. Capital is a result of saving; but the saving of which it is a result is not mere non-consumption, but rather a positive modification of the method of production which, by permitting longer periods, greater specialisation, and more serial methods, increase both capital and the product.

Long before industry has reached the highly-complex form with which we are familiar, enterprise or directive intelligence has become an element in the production of wealth which cannot rightly be ignored, or unceremoniously dismissed as a new DIVISION OF LABOUR. The

intelligence which directs the application of labour to land and capital, has now become a factor of prime importance. There is discernible in nearly all recent economic literature a tacit recognition of this fourth factor, though there is no general agreement in the use of a term for its designation (see ENTREPRENEUR). It is discussed sometimes under Industrial Organisation, sometimes under Management, and again, as a special variety of Labour. Directive intelligence and labour force, however necessary each is to the other in actual industry, are clearly distinguishable. They are united in various persons in quite different degrees. That they cannot be physically divorced is no more reason for not enumerating them separately, than the impossibility of exerting labour without materials is a reason for identifying those agencies. If a higher degree of intelligence directs industry at one time than at another, the result is an increase in total productive power, precisely as in the case of more abundant materials, more effective labour, or increased capital. Efficient wealth production in the present industrial *régime* depends indeed more on management than on any other single factor. Each of the other agencies remains essential, but intelligence in production becomes the variable factor which in recent times distinguishes the successful communities from those which, with equal opportunities, produce less wealth.

In actual industry we see these four agencies only in combination. The organisation of industry begins with its earliest forms, and becomes steadily more complex as society develops new wants and increases its productive power. The most prominent features of this more complex organisation are (1) an extension of the division of labour; (2) an increased localisation of industry or territorial division of labour; (3) an increased utilisation of different types of labourers for different kinds of production, or, as it may be called, a racial division of labour; (4) a tendency toward production on a larger scale; (5) the development of specialised machinery and individual skill.

A survey of production should lead to a clear conception of the sources of productive power. Modifying the enumeration of Mill (*Principles*, vol. i. bk. i. ch. vii.), to bring it more nearly into conformity with the preceding discussion, and reversing its order that the sources may appear in the order of their present importance, we may conclude that the productive power of society will be great when there exist (1) intelligent direction of the natural forces; (2) conditions favourable to a high degree of energy, enterprise, and trustworthiness; (3) serial methods of production, the outward indication of which is the presence of relatively large quantities of capital goods; (4) possession of abundant material resources.

Economic writers will naturally emphasise these various elements, not in accordance with the positive contribution made by each to the total production—which it is impossible to ascertain—but in accordance with their respective notions as to the degree in which any of them, at a given time, may be classed as limiting requisites. In the middle of the century the prevailing view was that capital was the limiting requisite. Mill's famous proposition that industry is limited by capital is the clearest expression of an idea, which is, however, also involved in the entire WAGES-FUND theory. The so-called SINGLE TAX movement is based on the idea that, under existing social arrangements, land is the limiting requisite. The theory of distribution, which makes of wages the "residual share," and of labourers the class that are in position to reap the benefit of industrial progress, implies that labour is the limiting requisite. Each of these assumptions may be true of a particular stage of industrial development, while it is probably true that at present production is limited by the slow increase of intelligent management rather than by a deficiency of land, labour, or capital. The laws governing the rate of increase of the productive agencies are of interest in the study both of production and of distribution.

The consumption of wealth properly forms, according to many recent economists, a distinct division of political economy, though in the standard texts consumption has usually been discussed only with reference to its effects on production. The economist is called upon to show that productive efficiency is increased by economical consumption, *e.g.* by the avoidance of waste, and in general by a judicious expenditure of income. It may also be pointed out that increased variety of consumption in society directly increases social wealth by calling on new resources in nature. The possibility of making the best use of land depends quite as much on the character of social wants as on the amount of scientific knowledge. Changes in human wants accompany changes in human activities, and are often their cause. The improvement of consumption is, as a rule, the initial step in social progress. Political economy finds its centre of interest in the home rather than in the factory, for the reason that the efficiency of society's production finds there its ultimate test. There is the most wealth only in that place where there is the greatest human weal. If wealth be not economically consumed, the labour expended in its production is in so far wasted. Production is the creation of utilities. Consumption is usually accompanied by their destruction, but in such a manner that the intended satisfaction is actually realised. In this last condition lies the distinction between consumption and waste.

[See CONSUMPTION AND CONSUMERS' GOODS. Jevons pointed out (*Theory of Political Economy*, p. 43) that the theory of economics must begin with a correct theory of consumption. Professor Marshall, in his *Principles of Economics*, has recognised the correctness of this view by placing the book on "Demand or Consumption" before that on "Production or Supply." Professor Patten in *The Theory of Consumption*, *The Theory of Dynamic Economics*, and elsewhere, has outlined the contents of a Theory of Consumption, which is practically independent of Production, Exchange, and Distribution, thus meeting the objection of Keynes (*Scope and Method of Political Economy*, 1st ed., note to ch. iii.), that the discussion of the various topics treated under Consumption may be distributed among the other divisions of political economy. The view urged by Keynes is that "a true theory of consumption is the keystone of political economy," but that "it may, nevertheless, be regarded as occupying the position of a fundamental datum or premiss of the science rather than as constituting in itself an economic law or laws on a par with the laws of production, distribution, and exchange." This statement and the article on CONSUMPTION reflect the usual treatment of the subject in standard English and American text-books.] E. T. D.

PRODUCTION, COST OF. See COST OF PRODUCTION.

PRODUCTION, INSTRUMENTS OF. A term applied to goods and agencies which have not of themselves any capacity for satisfying the desires of men, but which are requisite or advantageous to them in obtaining or making goods from which enjoyment can be derived. To the cotton manufacturer, his factory is on a different footing from his private residence; a waggon-horse serves a purpose, but not the same kind of purpose as a hunter. Of course, in many cases it is difficult to say to which class a given commodity belongs; indeed, the same commodity may be used for the one purpose at one time, and for the other at another, or for both at the same time, *e.g.* a ship conveying corn in the hold, and a pleasure-party in the cabins.

Nevertheless, the distinction is real, and great masses of agencies can be placed on each side of the line drawn by it. Accordingly, we have the classification of *Goods of the First Order*, for consumption; of the *Second Order*, for use as instruments; and we go on to a *Third Order*, for use as instruments in making instruments, and so on to farther refinements. (See GOODS, CLASSIFICATION OF.) It was Say who first gave attention to the distinction, and Hermann, Karl Menger, and the Austrian economists have proceeded to elaborate it.

The importance of the distinction comes out in the treatment of CAPITAL (*q.v.*) as consumption capital and auxiliary capital; in estimating the wealth of a country, when, as Prof. Sidgwick points out (*Principles*, bk. i. ch. iii.), "what is commonly prominent in the thought of men" is the consumption class of commodities; in comparing standards of value and estimating variations therein; in considering whether patents, goodwill, and some other immaterial properties should be reckoned as part of national wealth or not. But the introduction of a distinction within instruments of production, as to whether they are "purchased" or "unpurchased," *i.e.* given by nature, or acquired by effort and sacrifice, involves us in so much complication that no effective result is obtained by it. A. C.

PRODUCTIVE, THE TERMS.

Productive Capital, p. 216; Expenditure, p. 216; Consumption, p. 216; Services, p. 217; Utility, p. 217.

The sense in which the terms productive and unproductive have been used in economic discussions has undergone considerable changes from time to time. The views of mercantilists (see MERCANTILE SYSTEM; PHYSIOCRATS) in respect to this point were affected by the narrowness or breadth of their conception of wealth. Yet this statement alone will not suffice to account for the controversies which have raged around the proper use of these simple terms. What is really needed is to make the terms precise by explicitly indicating what it is in reference to which labour or other effort or sacrifice is considered productive. In the writings of Adam Smith and many more recent writers that labour is called productive which tends to increase accumulated wealth. Many of the misunderstandings which have occurred would have been avoided had writers expanded their thought into the phrase "productive of material wealth" or into "productive of permanent sources of enjoyment," or made it quite clear that such a conception was by them included in the single word "productive." Tradition has, in fact, associated with this term a special reference to stored-up wealth which prevents it from being employed, as common sense would seem to dictate, so as to apply to any effort which results in utility, so as, in fact, to include all effort except that which fails to attain its object, or in so far as it fails in that end if failure be only partial.

Productive capital is therefore capital devoted to producing the means of production and lasting sources of enjoyment, not capital which is itself a source of enjoyment.

Productive expenditure is such expenditure as is not devoted to ephemeral enjoyment, but, directly or indirectly, to obtaining increased means of acquiring utility.

Productive consumption will include only such consumption of productive workers as is necessary for maintaining their working capacity, but will include the necessary consumption of children or of adults during sickness, as these are devoted to the development or restoration of working capacity.

Productive services will include all such as are not in themselves an end, but are a means towards a more remote utility.

Productive utility.—If an object or service be capable of ministering to direct enjoyment, and also, either at the same time or alternatively, of assisting in producing either other means of production or some more or less permanent source of enjoyment—if, in fact, it can minister either mediately or immediately to enjoyment, the utility which it has in virtue of its capacity to minister to enjoyment mediately will be called productive utility.

The nature of the distinctions drawn between productive and unproductive services or goods will be best made clear by reference to the following quotations from J. S. Mill's essay on the subject. The artificial nature of some of these distinctions would be thrown into relief if their practical results were examined by applying them to particular cases.

"The following are always productive:—

"Labour and expenditure, of which the direct object or effect is the creation of some material object useful or agreeable to mankind.

"Labour and expenditure of which the direct effect and object are, to endow human or other animated beings with faculties or qualities useful or agreeable to mankind, and possessing exchangeable value.

"Labour and expenditure, which, without having for their direct object the creation of any useful material product or bodily or mental faculty or quality, yet tend indirectly to promote one or other of these ends, and are exerted or incurred solely for that purpose.

"The following are partly productive and partly unproductive, and cannot with propriety be ranged decidedly with either class:

"Labour or expenditure which does indeed create or promote the creation of some useful material product, or bodily or mental faculty or quality, but which is not incurred or exerted for that sole end; having also for another, and perhaps its principal end, enjoyment, or the promotion of enjoyment.

"The following are wholly unproductive:—

"Labour exerted, and expenditure incurred, directly and exclusively for the purpose of enjoyment, and not calling into existence anything, whether substance or quality, but such as begins and perishes in the enjoyment."

"Labour exerted and expenditure incurred uselessly, or in pure waste, and yielding neither direct enjoyment nor permanent sources of enjoyment."

[J. S. Mill's essay on "the words Productive and Unproductive," in his *Unsettled Questions of Political Economy*, gives one of the most useful discussions of the points involved.—Marshall, in ch. iii. of *Principles of Economics*, bk. ii., explains the senses in which the words are used, and, in a footnote, expresses the view that the distinctions should be allowed to dwindle gradually out of use rather than be suddenly discarded. Cp. also *Wealth of Nations*, bk. ii. ch. iii. and bk. iv. ch. ix.—Mill's *Principles of Political Economy*, bk. i. ch. iii., and Travers Twiss, *Progress of Political Economy*, § 6.] A. W. F.

PRODUCTIVE AND UNPRODUCTIVE LABOUR. Productive labour has been generally conceived as labour creative of wealth or profit, or, as M'CULLOCH expresses it, labour which occasions the production of a higher value than was expended on carrying it on, or even of the same value. Its scope is limited to the creation of utilities, since no labour can add to the quantity of matter in the world (J. B. SAY, *Traité d'Économie Politique*, bk. i. ch. i.): as the derivation of the word implies, production is the *drawing forth* or development of utilities from the existing sum of matter (see PRODUCTION). "Produire, en effet, c'est donner de nouvelles formes à la matière" (Condillac, *Le Commerce et le Gouvernement*, ch. ix.). Our conception of productive labour depends on our antecedent conceptions of WEALTH (*q.v.*) and VALUE (*q.v.*), that is, on our idea of what kinds of utilities constitute wealth (see UTILITY). Thus the MERCANTILE SYSTEM admitted as productive those methods of employing the factors of production which increased the stock of precious metals possessed by a nation, *e.g.* mining and export trade: a classification which stands or falls with the conception of national wealth as consisting in money (ROSCHER, *System der Volkswirthschaft*, bk. i. § 48). The PHYSIOCRATS based their division of productive and unproductive classes on the theory that the earth is the only source of wealth. According to them the labour of proprietors and cultivators of land is productive, as it increases the stock of raw material useful for human ends; that of manufacturers, artificers, and merchants is unproductive, as it is maintained out of the superfluities of the two productive classes. They held that the value of a manufacture depends on the quality of the raw material, any superiority in value of the finished over the raw product serving only to cover the cost of the worker's maintenance; while commerce simply moves existing wealth from one place to another. Adam SMITH (*W. of N.*, bk. iv. ch. ix.) pointed out that, even if the merchant and artisan only replaced the value of what they consumed, they could not accurately be called unproductive; but in fact their efforts increase the total revenue of a society, since in estimating it the amount of value they produce must be added to the total amount of value produced by the agricultural labourer for his own and their consumption. It has further been observed that many labourers undoubtedly add more value to their material than they consume: for instance, a sculptor and a stonemason produce widely different values in similar

blocks of marble; and some of the physiocrats admitted, on this account, the productivity of manufactures. But commerce also increases the value of material by transporting it not merely from one place to another, but from a place where it is in less to a place where it is in greater demand (see COMMERCE): as CONDILLAC shows, in an economic exchange both parties gain (*Le Commerce et le Gouvernement*, ch. vi.). The view of commerce as a "parasite industry," adopted by FOURIER (*Theory of Social Organisation*, New York, 1876, pp. 94-110) and socialists of his school, is based on a criticism of its abuses, not on a demonstration of its essential unproductivity.

Adam Smith observes further that, even supposing wealth to consist only in the raw produce of the earth, yet manufactures and commerce are often instrumental in importing more of this into a country than its own resources could produce. He thus expressly admits the principle of indirect production; but his own classification (*W. of N.*, bk. ii. ch. iii.) includes as productive the agricultural, manufacturing, and mercantile classes, because their labour tends to "fix or realise itself in some permanent subject or vendible commodity," and excludes the labour of officers of war and justice, clergy, lawyers, physicians, domestic servants, actors—in short, personal services. M'CULLOCH, on this passage, remarks that this division is inconsistent with Smith's admission elsewhere that wealth includes other than material and vendible products; but in any case it is the services of Smith's unproductive classes that enable his productive classes to produce. A soldier or a servant, by relieving the direct producer of work which he would otherwise have to do for himself, leaves him time to produce proportionally more; thus according to Smith's own theory of the DIVISION OF LABOUR (*q.v.*) these personal services should be considered at least indirectly productive. Smith's inconsistency is in neglecting to include here, as he does elsewhere, the principle of indirect production; his restriction of the scope of productive labour to a single kind of wealth is not necessarily inconsistent, but as J. B. SAY noticed (*Traité*, bk. i. ch. xiii.) it is arbitrary. To Say belongs the credit of demonstrating that since we can neither create nor annihilate matter, but only develop utilities in or apart from matter, there is no scientific objection to our applying the term "productive labour" to the creation of immaterial as well as of material products. Unfortunately neither Say nor M'Culloch sufficiently emphasises the truth that material and immaterial products alike can be considered wealth in virtue not of their utility—which Smith did not deny to immaterial products—but of their exchangeable value. They are apt to neglect the distinction so carefully maintained by the physiocrats, between *biens* and *richesses*. J. S. MILL therefore (*Principles of Pol. Econ.*, bk. i. ch. iii.), observing with justice that the production of utility does not satisfy the notion which mankind have usually formed of productive labour, whose end he conceives to be not utility but wealth, and that the word "unproductive" conveys no stigma unless production be regarded as the sole end of human existence, revives and expands Smith's definition. He remarks that the popular idea limits wealth to the possession of utilities fixed in material objects, not because they are material, but because they are capable of accumulation. Labour, therefore, which produces utilities fixed and embodied in material objects, he calls productive, and he shows that this definition includes commerce. Labour which produces utilities fixed and embodied in human beings, such as the labour of teachers and physicians, he regards as indirectly productive if an increase of material products is its ultimate result; but in Mill's *Essays on some Unsettled Questions of Pol. Econ.* he gives quite a different reason for regarding it as productive, namely that utilities embodied in human beings are permanent and may therefore be considered wealth. Labour not fixed nor embodied in anything, but consisting in a mere service rendered, he calls unproductive.

But first, it is hardly possible to draw a line between material and immaterial products. A statue or picture is a material product, but its value is mainly as immaterial as that residing in the performance of an actor. Secondly, almost every occupation, however frivolous, could be imagined to contribute to mental or bodily health and hence, indirectly, to the increased productivity of the productive labourer. Thirdly, Mill grants that unproductive labour is often productive for an individual or a nation, if not for the world at large. A mercenary soldier or a travelling actor labours productively from his own point of view if his gains repay his exertions; and if he returns home his gains increase the sum of his own nation's wealth. Fourthly, utilities embodied in material objects are not always wealth: a commodity unsaleable because produced in a quantity exceeding the demand for it is not wealth, therefore the labour spent on producing the excess was unproductive, as Mill in the *Essays* admits. Thus the definition in the *Principles* covers some cases where labour is not productive, but not all cases where it is. Mill urges the advisability of accommodating economic definitions to popular conceptions. A scientific definition should express not the popular conception but its philosophic basis; but apart from this, the conceptions of wealth and consequently of productive labour have varied so widely that popular usage cannot well be quoted in sanction of any one of them.

In the *Essays*, Mill prefers to define productive labour as the creation, directly or indirectly, of permanent sources of utility or enjoyment possessing exchangeable value. But the assumption that permanence is necessary to the idea of wealth violates the law of continuity. "Things are of all degrees of permanence, from the land which lasts for ever down to labour which perishes in the using" (Macleod, *Elements of Economics*, vol. i. p. 85). Mill does not indicate at what length of duration he draws the line. The one characteristic common to all kinds of productive labour is the exchangeability of their products; and immaterial products are as exchangeable as material ones. ROSCHER's classification of productive labour as "all labour which is in reasonable demand and adequately paid," is in harmony with the conception established by the ancients and accepted by the physiocrats and Adam Smith, that the principle of wealth resides in exchangeability. F. A. WALKER (*The Wages Question*, London, 1891, pt. i. ch. i.) proves only that all wealth is not exchanged, not that it is not all in principle exchangeable.

Whatever may be the defects of Mill's classification, he perceives that a scientific definition of productive labour does not necessarily enable us to determine whether any particular piece of work is productive or not. Still less can we distinguish between productive and unproductive classes: as SENIOR says, most men belong to both. Again, the distinction of direct and indirect productivity can be maintained only in relation to a given kind of labour: for instance, a judge, by securing the payment of a shoemaker, contributes indirectly to the fabrication of shoes, while the shoemaker, by supplying the judge with shoes, contributes indirectly to the maintenance of justice. Productive and unproductive labours differ not in kind but in degree. To the community all labours are unproductive which are maintained to the disadvantage of others which are more necessary, as when the military, clerical, or professional classes increase out of proportion to the agricultural and manufacturing classes. Not the profession as such, but the excess of the numbers engaged in it is unproductive; agricultural or manufacturing labour would be equally so, if more of it were employed than was necessary to attain the desired result. Since all production involves antecedent consumption or destruction, it is necessary to the idea of productive labour that the value it creates should not be less than the value it destroys. Senior, indeed, prefers to distinguish between productive and unproductive consumers (*Pol. Econ.*, London, 1872, pp. 53-57), a distinction which has its advantages, since, as Mill observes, all members of the community are not labourers, but all are consumers. But in neither case is it possible to draw a hard and fast line between productive and unproductive.

Productive labour, then, is best defined as labour which creates or develops, directly or indirectly, material or immaterial products, exchangeable, and possessing a value not less than the value consumed in producing them. These products may be of every degree of necessity, from daily bread to Mill's "pine-apples and gold lace"; and of every degree of durability, from a newspaper to the κτῆμα ἐς ἀεί of Thucydides. HERMANN (*Staatswirthschaftliche Untersuchungen*, 2nd ed., 1870, p. 20) distinguishes further between various extents of productivity. To the producer a labour is productive if he makes a profit by it; to the consumer, if its value to him exceeds the value he expends in securing it; to the community, if it increases the sum of exchangeable goods. But some labours are profitable to individuals though not to the community, *e.g.* games of chance, as a rule, since by labour which deprives one person of as much as, or more than, it brings in to the other, the common stock of wealth is not increased. On the other hand, some labours may be unprofitable to the producer, and yet contribute to the general wealth more than he expended, *e.g.* scientific experiments. Roscher observes that private economy measures the productivity of labour by the exchange value of its product, general economy by its value in use, while national economy holds an intermediate position. But from whatever point of view the question be regarded, most recent economists agree in admitting the creation of immaterial products to the rank of productive labour. The higher the ground we take, the harder it is to estimate the productivity of any given labour: the most we can say is, with Roscher, that the greater, freer, and more intelligent a nation is, the more will the gain of the individual tend to become identical with the gain of the nation and of the world.

[See also EFFICIENCY OF LABOUR; EXCHANGE; LABOUR; PROFIT. The development of the theory of productivity is best described by Roscher, *System der Volkswirthschaft*, Stuttgart, 1880, vol. i. bk. i. §§ 48-55; he gives an exhaustive list of authorities. Good summaries are also given by Macleod, *Elements of Economics*, London, 1881, vol. i. bk. i. ch. v. §§ 8-11, ch. vi. §§ 1-10, and bk. ii. ch. i. § 48; and by Kleinwächter in Schönberg's *Handbuch der politischen Oekonomie*, Tübingen, 1882, vol. i. pt. v.—Read also Adam Smith, *Wealth of Nations*, ed. M'Culloch, Edinburgh, 1850, bk. ii. ch. iii. and bk. iv. ch. ix.—Condillac, *Le Commerce et le Gouvernement*, Amsterdam, 1776, chs. ix. x.—J. B. Say, *Traité d'économie politique*, Paris, 1817, vol. i. bk. i. chs. i. ii. iv. v. xiii.—M'Culloch, *Principles of Pol. Econ.*, London, 1830, pt. i. ch. i. and pt. iv. p. 523.—Mill, *Principles of Pol. Econ.*, London, 1880, bk. i. ch. iii.; and *Essays on some Unsettled Questions of Pol. Econ.*, London, 1844, Essay iii.] E. R. F.

PRODUCTIVITY OF CAPITAL. That the labour of men is rendered more efficient when that labour is assisted by capital, is accepted as a general truth by all. Something more than this is, however, implied when the statement is made that "capital is productive," and when the productivity of capital is assigned as a reason for and source of interest. It is implied in this, not merely that labour assisted by capital produces more commodities than labour which has less or no assistance, but that more value is produced; and not only that more value is produced, but that this addition of value to the product exceeds the value of capital consumed in the process. The expression of this by M. Paul Leroy-Beaulieu takes the form that the employment of capital saves time in the production which it assists—perhaps we should say labour-time—and that this saving in general exceeds the time, or labour-time, expended in the formation of the capital. This excess measures the productivity of the capital.

The school of writers represented and led by Dr. von Böhm-Bawerk, regarding value from an opposite point of view from that of the school of Adam Smith and Ricardo, find the idea of productivity of capital a stumbling-block. Value in their view rests on utility, and the value of capital and the value of labour depend on the value of the products they serve to turn out. From this point of view, capital cannot serve to produce surplus value, that is, to replace its own value, with a surplus, in its product, since the value of the products precisely determines the value of the productive instrument. The products are future, and the total present value of the future products of the instrument is the actual value which that instrument has. The present value is less than the future value will be, when the products are complete and become "relative to their users" present. This agio on present goods or discount on future goods, being dependent on mental estimates of future *versus* present, does not depend on the cost of production of the capital, and does not leave any room for surplus value to be produced by the capital as it is consumed in giving birth to products.

The other view of value readily finds a place for productivity of capital. The value of products being conceived as dependent on their cost of production, the effectiveness of effort directed towards their production by different methods is compared. If a process involving the preliminary formation of capital, to be subsequently used in producing the required commodity, be productive of a greater quantity, and a greater value, of the commodity than equal effort applied otherwise without the intermediate formation of capital would have produced, the extra quantity, or value, of product is attributed to the capitalistic process. On such a basis the idea already mentioned, of such writers as M. Leroy-Beaulieu, in regard to productivity of capital, rests.

The closer analysis of ideas on the part of representatives of both schools of thought, in fact, attributes the productivity, not to the capital, but to the different processes of production. The more direct process of production is less effective (at any rate in general, and up to a certain point) than the less direct process. The one school thinks of the use of a greater amount of capital, the other, striving to penetrate to the foundation of things, discusses the more prolonged production process, and asserts an increase of productivity with the prolongation of the process. This idea is, doubtless, in general correct, but not of necessity, for invention may, as has been suggested (*e.g.* by Prof. Taussig), take the direction of pointing out ways of abbreviating productive processes while rendering them more productive; that is to say, not merely showing how productive processes of the old duration may be made more productive, but giving a maximum productivity for a process of shorter duration than the former most productive process. This shorter process may require a larger proportionate value of capital in the intermediate stages than the displaced processes, in spite of its whole duration being shortened.

So long as the leading conception in thinking of value is its measure by "cost of production," there is no difficulty about the idea "productivity of capital." But there is something like a negation of any possible meaning to it when value is conceived of as something determined wholly by utility, and when the comparison of present with future utilities is effected without reference to the production-costs of the sources of the one and the other. There is no room for a surplus of value to be produced by the capital, unless in that idea we comprise the gradual accretion of value as future ripens into present utility. We may go further, and say that, admitting that values tend to be proportionate to costs of production, this is effected by so distributing effort, in relation to utility aimed at, that equal effort realises equal utility in every direction. The value arises out of the utility of the resulting commodity, though it may preserve proportionality to the productive effort. From this point of view, the existence of a state of things such as that contemplated by M. Leroy-Beaulieu might perhaps be viewed as an indication of a misdirection of effort, since the realisation of greater value from the same expenditure of labour-time in one process than in another shows a want of balance between different processes, an absence of that equilibrium between the various phases of industry contemplated in most inquiries, where statical conditions are supposed achieved, or the statical condition which would equilibrate existing forces is sought. In fact, in a state of equilibrium,

it would be necessary to suppose that the surviving more direct processes of production were of such nature as to be equally productive marginally with the indirect processes adopted, that the indirect methods actually in use were all equally productive of value, or at any rate so nearly so marginally that no transference of effort from one to another could lead to increased production of value.

The adoption of indirect processes, given the sum of present effort available, must mean a lessened production of immediately consumable goods; and the extension of such processes will therefore cease when, by restriction of present goods and increase of the means of production of future goods, the short supply of present and the large supply of future goods is accommodated to the relative demand for these at the existing agio on present goods, granting that this agio is determinable.

In either case, whether we take the view of value which readily gives meaning to the phrase we are considering, or that which renders such meaning inconceivable, one thing is certain, and that is that we have to find some reason for the greater amount of product, or of value, which is, in the long run, given by indirect as contrasted with direct processes. Whether at some assumed agio on the present in comparison with the future, such sums of products have or have not an equal present value, is another question. It is not contested that the sum of the values, when they ripen into present values, of the utilities afforded by indirect processes of production, exceeds in general the sums of value attainable with equal effort in a directer process. The qualification "in general" simply applies to the fact that a *most productive* degree of indirectness exists. Further extension of processes of production beyond this point would involve smaller productivity, whether in present value of future utilities or in the sum of the values to be realised in the future by such utilities, *i.e.* whether by the sum of the discounted future utilities or of the actual future utilities.

The increase of product in indirect processes may be said to be due to the fact that certain natural forces or phenomena can be made to minister to the wants of man, on condition that he prepares means through which to utilise those powers. The wind will serve to grind his corn or move his goods from one place to another, provided he prepares sails and gearing to transmit their motion to grindstones in the one case, and a boat, ship, or barge fitted with mast and sails in the other. The pressure of the atmosphere helps him to use his physical strength to raise water from a well more easily than by lowering a bucket into it, if he prepares a pump with its necessary appurtenances. He may obtain fire more easily by rubbing a match on a duly prepared surface than by rubbing two sticks together or striking flint and steel over tinder. The pressure of superheated steam can be made to move very heavy things and do a great variety of useful work if an engine properly designed to take advantage of that pressure be first constructed. To take one further example, the resistance offered to any propelling force used to move heavy goods is less if wheels be made and so arranged as to support the goods while they can turn freely, still more if they be made to run on a previously prepared track such as a well-made road or on rails such as tramways and railways utilise. These common examples are all cases where natural powers cannot assist man in obtaining utilities without the provision of what may be compared to a harness for those powers, or are cases where hindrances opposed by nature in the way of man's efforts to supply himself with utilities may be avoided by means of suitable provision of apparatus. The productivity of indirect productive processes will be found to be generally if not universally reducible to one or other of these heads. There are indefinite reserves of natural powers which can afford utilities to man, but only the barest minimum of utility is offered except on condition of intelligently directed effort on a man's part. As has been said, "The more man will do for himself, the more nature will do for him."

There remains the important question of the conditions governing the amount of the productivity of indirect as compared with direct processes of production. Here it may be said that the "law of diminishing utility" is constantly at work to limit the indefinite extension of the mere repetition of particular processes, aimed at producing a given commodity. The increase of quantity of commodity is met by a decrease of its marginal utility. On the other hand, new wants are being discovered, and new ways to satisfy old wants with reduced outlay. Scientific discoveries reveal ways of extracting utility from substances previously useless or even noxious, and old processes are replaced by new ones for obtaining many commodities. These things, together with the constant growth of wants, whether of individual or of community, and the extension of utilities formerly enjoyed by restricted sections of society, to new classes, afford opportunity for constant utilisation of increased quantities of effort in indirect processes of production, while the fuller satisfaction of wants, reducing the marginal utility of their further satisfaction, opposes the increase of value-productivity by extensions of individual processes beyond definite limits. There tends, therefore, to be a reduced yield of value through increase of supply of particular products on the one hand, an increase of value through discovery of new means of affording utility on the other hand. The latter includes the development of new wants and the discovery

of new methods of adapting natural powers to the supply of utilities to mankind.

[On this subject special prominence may be given to Dr. von Böhm-Bawerk's works translated by Professor W. Smart, under the titles, *Capital and Interest* and *The Positive Theory of Capital*. The former contains criticism of other writers, the latter the development of his own views. In addition, Leroy-Beaulieu's *Essai sur la Répartition des Richesses*, and some chapters of his *Traité théorique et pratique de l'Économie Politique* should be consulted, and the corresponding parts of the general treatises of numerous writers, particularly J. B. Say and Malthus. More or less on the subject is contained in almost every elaborate general treatise on political economy.]

A. W. F.

PRODUIT NET. The PHYSIOCRATS (*q.v.*), to whom we owe the distinction between gross and net national income, applied it in accordance with their cardinal doctrine that all wealth is derived from the land. Thus QUESNAY uses the term *produit net* as signifying the surplus of the raw produce of the earth left after defraying the cost of its production. He reasoned further that since natural agents are the sole source of wealth, and since only one class in the state—the class of agriculturists engaged in obtaining raw produce—pays rent for the use of natural agents, therefore the *produit net* is represented by this rent, which serves for the support of Quesnay's second or proprietary class, and the payment of his third or unproductive class of merchants, manufacturers, public officials, etc. On this theory it follows that the entire expenses of government are ultimately defrayed out of the rent received by the landlords; Quesnay was therefore consistent in proposing that all taxes should be repealed and replaced by an IMPÔT UNIQUE (*q.v.*) laid directly on the rent of the land (Quesnay, *Tableau Écon.*, London, 1894; *Physiocratie*, 102 *et seq.*).

Quesnay's reasoning suffers partly from the inadequacy of the physiocratic conception of WEALTH (*q.v.*, also PRODUCTIVE LABOUR), and partly from a misunderstanding of the origin and causes of RENT (*q.v.*). As M'Culloch shows (Introduction to Smith's *Wealth of Nations*, Edinburgh, 1850, p. xli.; note, p. 305; supplementary note on rent, p. 444), the payment of rent is not a necessary condition of agricultural labour, but arises only in an advanced state of society as "a consequence of the decreasing fertility of the soil, or of our being obliged to resort to inferior lands to obtain supplies of food for our increasing population." In any case, Quesnay was wrong in identifying rent with excess of price over cost of production (Malthus, *Principles of Pol. Econ.*, London, 1836, ch. iii. § 1).

[Smith (*Wealth of Nations*, bk. ii. chs. i. v.) and Lauderdale (*Inquiry into the Nature and Origin of Public Wealth*, Edinburgh, 1804, pp. 122 *et seq.*) attempt to avoid the consequences of Quesnay's theory by classifying kinds of labour according as they increase not the *revenu net* but the *revenu brut*. But this does not touch Quesnay's real error. See Roscher, *System der Volkswirthschaft*, Stuttgart, 1880, vol. i. § 147.—Sismondi, *Pol. Econ.*, London, 1847 (Eng. trans.), p. 224, "On the National Economy, or the Income of the Community."]

E. R. F.

Reference may also be made here to recent support given to the practical issue of the *produit net* doctrine, though on somewhat different grounds. The late Henry George, through the study of the Ricardian theory of rent, and experiences of California and the mushroom rapidity of growth of great American cities, was led to depreciate the contribution of individual owners to the value of land; he considered the land in the main as directly God-given, and increased in utility by the progress of the community in wealth and numbers. Hence he was further led to consider the absorption of its increased values by individuals fundamentally unjust, and a great cause of modern poverty. Recognising, however, certain advantages in private ownership, he did not propose to abolish it, but preferred to secure for the community the rents under the form of a "tax" on land. This tax he persuaded himself would suffice to bear the whole burden of the expenses of the state. From a certain vigour of style and a directness of attention to the contrast between poverty and affluence which modern civilisation has not removed, his writings gained a hearing in England, while in the United States of America he was hailed as the leader of a considerable party. In 1892 he was run as a candidate for the presidency, and in 1897 he was actually engaged in the contest for the first mayoralty of Greater New York when he died, Oct. 1897, within three or four days of the election.

[H. George, *Progress and Poverty*, 1879; *Social Problems*.]

A. C.

PROFICUUM. See FARM OF THE COUNTIES; INCREMENTUM; PIPE ROLLS.

PROFIT, originally a vague word signifying any kind of gain to obtain which some expense or risk must be incurred, has had various narrower significations attributed to it by the definitions of economists,

Adam SMITH, when classifying the national income under the three heads of wages of labour, profits of stock, and rent of land, says that wages are "confounded with profit" when the term "profits" is applied to the whole of the gains of a working farmer or of an independent artisan. A part of these gains, he explains, is wages due to the farmer as labourer or overseer, and to the independent artisan as journeyman. Though he does not lay down any rule on the subject, it may be gathered from his refutation of the proposition that profits "are only a different name for the wages of a particular

sort of labour," that he would decide how much of the gains of any particular capitalist is true profit by means of a comparison of the total with the amount earned by non-capitalists by performing similar labour (*W. of N.*, bk. i. ch. vi.). RICARDO, James MILL, and MALTHUS in his *Political Economy* did not subject the idea of profits to analysis. But Malthus in his *Definitions* (1827) divides "the gross profits of capital independent of monopoly" into (1) "net profits" or "interest," and (2) "the profits of industry, skill, and enterprise" (Definitions 34 and 35). M'CULLOCH, in the 2nd ed. of his *Principles*, makes the same division of "gross profits" into (1) net profits or interest, and (2) "wages or remuneration of the capitalist for his skill and trouble in superintending" the employment of his capital, and "compensation for such risks as it might not be possible to provide against by an insurance" (p. 506). J. S. MILL (*Unsettled Questions*, pp. 107-109, and *Principles*, bk. ii. ch. xv. § 1) treats profits as including the whole of the gains of the capitalist, whether due to the mere possession of capital, or to that and the performance of labour and the undergoing of risk. FAWCETT (*Manual*, bk. ii. ch. v.), JEVONS (*Primer*, p. 52), Marshall (*Principles*, vol. i. 1st ed. p. 142, 3rd ed. p. 156) adopt the same course. Some writers, however, *e.g.* ROGERS (*Manual*, ch. xi.), B. PRICE (*Practical Political Economy*, ch. v.), C. L. Shadwell (*System*, p. 158), follow Adam Smith's plan of regarding as profits proper only that portion of the capitalist's gain which he may be supposed able to obtain without personal labour and if fully insured against risk, while F. A. WALKER, on the other hand, desires to apply the term "profits" only to the other portion of the entrepreneur's gain, namely, that which is over after deducting interest on all the capital he employs, whether it belongs to himself or to another person (*Political Economy*, 1885, p. 247). In practical life the term "profits" is used in all three senses with almost equal frequency. It would be applied without hesitation (1) to the total gain of an individual capitalist employing none but his own capital, and personally performing all necessary labour of management (Mill's profits), (2) to the gains of a joint-stock company or private firm in the case of which all labour of management was paid for by fixed salaries (Adam Smith's true profit), and (3) to the net gain of an entrepreneur employing no capital of his own (Walker's profit).

The earlier 19th century economists, believing that profits in the larger sense were to be regarded as a residue left to employers after payment of rent and wages, assumed that both elements rose and fell together, and in consequence of the same causes. The assumption is unfounded, and it is necessary to consider the two elements separately. As regards the interest element, the kernel of the modern theory is as follows: An isolated individual will often find it advantageous to spend a certain portion of his time in increasing his stock of useful things by the addition of fresh instruments or other objects the enjoyment of which is not immediate but spread over a length of time. The time may be short, as in the case of a stock of grain to last till the next harvest; of moderate length, as in the case of a spade; or interminable, as in the case of the diversion of a stream into a new channel. In deciding what work of this kind he will undertake, the isolated individual will be guided by the relative "profitableness" of the different kinds of work open to him. The "profit" will be reckoned by the amount of future annual labour the work will save him, or, which comes to the same thing, the amount of additional annual income it will enable him to obtain without increasing his annual labour. He will not, for example, first divert stream B at the cost of ten days' labour if that will save him one day's labour per annum ever after, and he knows that to expend ten days' labour in diverting stream A would save him two days' labour per annum ever after. But if he is able to go on accumulating, and knows of no better investment, he may divert stream B after he has diverted stream A.—The rate of interest he obtains would then fall from twenty to ten per cent per annum.—The introduction of other individuals practising exchange of commodities and services does not alter the essential features of the process. The isolated individual, in adding to his stock, selects the most profitable investments known to him first, and so, on the whole, does a number of individuals holding private property and practising exchange. The only important difference lies in the fact that in the latter case the investment and the profit are both reckoned by their value in money, instead of directly by the amount of labour expended and the amount of labour periodically saved, or amount of utility periodically gained. Consequently, in the highly organised modern community as well as in the case of the isolated individual, accumulation tends to cause a fall in the rate of interest, and if there were no change in men's knowledge of profitable investments, the rate could only be maintained or increased in face of accumulation by an increase of population proportionate to or greater than the increase of accumulated useful things. But men's knowledge of profitable investments does not remain the same. Inventions are continually being made which either reveal new profitable investments unknown before, or reveal direct methods of production which enable men to dispense with the additions to the accumulated stock which would otherwise have been profitable. Invention thus sometimes tends to raise the rate of interest, and sometimes, but probably

far more seldom, tends to lower it. The discovery of a practical method of applying steam power to locomotion is the stock example of an invention which caused a considerable pause in the downward progress of the rate of interest by providing a new investment of enormous magnitude. There is no such striking instance of the other kind of invention, but the discovery of means of sending several telegraphic messages at once on the same wire is a case. To this theory, which bases the determination of the rate of interest entirely on the productivity of the marginal investment, it is sometimes objected (*e.g.* by H. J. Davenport, *Outlines of Economic Theory*, 1896, § 114) that the demands for loans for consumption by spendthrift individuals, belligerent governments, and others, obviously affect the rate of interest. This is true enough, but it must not be forgotten that if B borrows and spends as income all that A saves, there is no accumulation of capital. Borrowing for consumption or unproductive purposes tends to raise the rate of interest simply because the consumption tends to reduce the accumulation of capital, and therefore tends to make the rate of interest obtainable in the marginal productive investment higher than it would otherwise be (see INTEREST).

A high rate of interest, or, as it is more often elliptically expressed, "high interest," does not necessarily mean that the aggregate amount received as interest is high, nor that individual interest-receivers are paid a large amount per head. It only means that the ratio of interest to principal is high. The importance of this ratio is obvious; the annual return to be expected from further savings is indicated by it. But the ratio between profits in the narrower modern sense—*i.e.* the earnings of business management by the capitalist, or profits in the wide sense after deducting interest—and the capital of the profit-receiver is not of much importance, and little but vague generalities can be laid down respecting it. As between trade and trade at the same time it will depend on the amount and value of the labour performed by the profit-receiver compared with the amount of the capital required. The rate of profit, exclusive of interest, obtained by Adam Smith's "apothecary" (*Wealth of Nations*, bk. i. ch. x.) was high because the amount and the value of his labour were large in proportion to his small stock of drugs. Marshall's rolling-mill proprietor, on the other hand (*Principles of Economy*, 3rd ed., 1895, vol. i. p. 691), obtains a low rate of profit, exclusive of interest, because in proportion to his enormous capital his labour is of little account. The same rule holds good of the rate of profit, exclusive of interest, in the same trade at different times. A large and well-paid portion of apothecaries' labour having been taken over by medical men paid by fees, and the stock of drugs required having considerably increased, apothecaries' profit has ceased to be "a bye-word denoting something uncommonly extravagant." The value of the labour of the capitalist will vary in consequence of the same causes which bring about variations in wages (see WAGES). Its amount varies with changes in the organisation of industry. The general introduction of the joint-stock company system, for example, has reduced the average rate of profit, both by throwing open to all competent persons certain labour formerly confined to capitalists, and thereby reducing the value of that labour, and by diminishing the amount of the labour performed by capitalists by handing over a portion of it to wage-paid managers and others. (For Walker's theory of profits see RENT OF ABILITY.)

A third element is sometimes said (*e.g.* by J. S. Mill, *Principles*, II. xv. § 1) to be present in profits, viz. "compensation for risk." Here we must distinguish between the profits of a single particular investment and the average profits obtained from a particular class of investments. If every one calculated risks perfectly accurately, and if chance of loss were generally reckoned as exactly counterbalancing an equal chance of gain, competition would so regulate the supply of capital that the successful investments in the more risky classes would pay just enough, and no more than enough, to counterbalance the losses incurred in the unsuccessful investments. Each particular successful investment would bring in something which might be called "compensation for risk," but the average of profits obtained from the whole class would contain no such compensation. If, of course, it were generally recognised that a chance of loss outweighs an equal chance of gain, competition would so regulate the supply of capital that the riskier classes would return on the average somewhat higher profits than the less risky. There is, however, no evidence that this is the case. The probability is that the classes of investments which on the average return most to the investor are neither the very safest of all nor the very riskiest, but the intermediate classes which do not appeal either to timidity or to the gambling instinct.

[A very complete bibliography will be found in Böhm-Bawerk, *Capital and Interest, a Critical History of Economical Theory*, 1884, transl. by Smart, 1894, in the Index of the authors mentioned in the work at the end of the volume. See also the authorities quoted in the text above and under INTEREST. Marshall in *Principles*, vol. i. 3rd ed. bk. vii. chs. vi.-viii., deals with the remuneration of business management more completely than his predecessors. Wieser's *Natural Value*, transl. by Malloch 1893, shows how the main principles of the theory of interest are independent of any particular social organisation.] E. C.

PROFIT AND LOSS ACCOUNT. See art. on BALANCE SHEET, in which reference is made to the point under Heading vii.

PROFIT SHARING is a mode of industrial remuneration under which those employed receive, besides their salary or wages, a stipulated proportion of the net profits of the year, either in cash or deferred advantages. This definition excludes cases where an unfixed bonus is distributed, at the discretion of the employer, but this "chrysalis stage" has not seldom led to profit-sharing proper. The amount of remuneration received varies very greatly, but, in the majority of cases, is, roughly speaking, from 4 to 10 per cent of the wages of the year. Where the benefit is prospective, a definite share of the profits is either paid over to a provident fund against old age or sickness, or invested, on behalf of the workmen, in the shares of the employing company. Whatever, however, be the form it takes, the *raison d'être* of profit-sharing remains the same. The present time-wage system, it is contended, gives no incentive to the workman to work his best, while piece-work is often impossible, and, in any case, tends to an increase of quantity, at the expense of quality. By profit-sharing it is sought to enlist the interests of the workman on the side of the employer. A new source of profit is thus opened, which benefits labour, without diminishing the returns of capital. The sources of this profit spring from a reduction in the waste of material, an improvement in the work done, economy in supervision, avoidance of strikes, a greater stability in the staff, and, lastly, from the enlistment, on the employer's behalf, of the men's best faculties—suggestions as to improvements and new processes being thereby obtained. If these claims be good, and they are advanced by practical men, who have made trial of profit-sharing, they afford an obvious answer to the argument that the system is unfair because the workmen do not share losses as well as profits. A more formidable criticism is, that inasmuch as profits mainly depend on causes over which workmen have little control, it is illogical that they should enter into the calculation of wages. For this reason some economists would prefer what they term a PROGRESSIVE WAGE (*q.v.*), but in any case there is room for a variety of systems.

Profit-sharing was first adopted in England by Lord Wallscourt about 1832; the credit of its introduction into France, in 1842, is generally ascribed to a Frenchman, LECLAIRE (*q.v.*). In England the first notable trial of it was made by H. Briggs and Co. in 1865, at their Whitwood collieries. The experiment was a failure, and after nine years the system was abandoned. Its introduction had been widely blazoned abroad, and had met with the warm approval of J. S. MILL, W. T. THORNTON, and H. FAWCETT, hence its failure became equally conspicuous. It is to this, in great measure, that the little progress made in the ensuing years must be ascribed. There had, however, been special hindrances at work in the Briggs case. Before the introduction of profit-sharing, the relations between masters and men had been extremely strained, and a quarrel about the local trades union supervening before mutual confidence had been established, created distrust of the system, both among the men and the shareholders. Among English firms that still continue the system, there is one, Messrs. Fox of Wellington, Somerset, which adopted it in 1866, but it was not till 1889-91 that the progress of the movement became rapid. During these three years profit-sharing was adopted by no less than fifty firms. Of individual cases of profit-sharing firms, among the more notable are:—

1. South Metropolitan Gas Co., 3000 to 3900 employees.
2. Sir Joseph Whitworth and Co., engineering works, Manchester, 2000 employees.
3. Brush Electrical Engineering Co., 1010 employees.
4. Messrs. Cassell and Co., printers, 1150 employees.
5. Messrs. Clarke Nicholls and Coombe, confectionery manufacturers, London, 1200 employees.
6. Messrs. W. and H. Wills, Bristol, tobacco manufacturers, 1460 employees.

In 1894 Mr. Schloss reported on 152 experiments, of which 101 were still being carried on; only in 16 of the failures did he attribute the abandonment to dissatisfaction with the system. Upon the other hand, it is disappointing to find that no great extension of the system appears to have taken place in subsequent years, and that the important firm of Messrs. Watson and Viney, printers, have discontinued the system on the ground that "profits had not for some time allowed payment of bonus."

The profit-sharing scheme of the South Metropolitan Gas Co. calls for special notice. It is an extension to the employees of the principle of the sliding scale, whereby the dividends are regulated by the price of gas; any increase of the one involving a diminution of the other, and *vice versa*. The condition of acceptance of this bonus is willingness to enter into a contract of service for a limited period not exceeding twelve months. The bonus percentages during the years 1890-1896 were 5, 5, 3, 4, 6, 6, and 7½. In 1894 the percentage rate was increased on condition that one half of each man's total bonus shall be invested in the company's ordinary stock; the other half being payable in cash annually as before. It was already possible to leave the bonus on deposit with the company at 4 per cent. About 2500 profit-sharing stockholders held in 1897 stock to the market value of about £60,000, while there was a further sum of about £27,000 on deposit.

The South Metropolitan Gas Act 1896 provides for the appointment of one or more directors, not exceeding three, by the profit-sharing employees. Such directors must, however, have been at least seven years in the constant employment of the company, and must have held for not less than twelve months not less than £250 worth of stock. It is proposed to reduce this amount, which was fixed by parliament against the opinion of Mr. Livesey.

In all, it is estimated that there are at the present time nearly 100 firms practising profit-sharing, employing from 48,000 to 50,000 persons. Besides these are such of the co-operative productive societies as have introduced the system, *e.g.* the Scottish Wholesale Society, the Hebdon Bridge Fustian Society, and the Leicester Boot and Shoemaker Society. It must, however, in fairness be admitted that, in spite of general motions passed at co-operative congresses, the system does not seem greatly to commend itself to the rank and file of workmen co-operators (see "Co-operation and Profit-sharing," by B. Jones, *Economic Journal*, vol. ii. p. 616).

With respect to profit-sharing generally, there is one remark of a disappointing character. Whereas it was the expectation of its early advocates that a half-way house might thereby be provided towards real industrial partnership, the profit-sharing of to-day is, except in the case of the South Metropolitan Gas Co., hardly tending in this direction. Still, on whatever lines, the advance up to a certain point has been so great that it is natural to consider how far profit-sharing would admit of general extension, and thus serve to point the way to "industrial peace." On this question the warning is needed that nothing could be of more sinister omen to the future of profit-sharing than an indiscriminate application of it by all sorts and conditions of employers. Seeing that the supply of unskilled labour is generally in excess of the demand, the inevitable result would be that, in the absence of means such as trades unions to maintain a certain rate, wages would fall in proportion, so that what was gained with one hand would be lost with the other. Even at present, trades unionists are ready to suspect profit-sharing firms of wishing to bring down wages, and though generally this is altogether untrue, in one case a firm giving the high bonus of 26 per cent was found to be paying its workmen less than the recognised wage. Nothing could be more disastrous for profit-sharing than for such cases to multiply. Moreover, it must be remembered that there are industries such as cotton-spinning, etc., in which interest on capital fixed in machinery is the chief element in cost price, and in which piece-work is especially convenient, so that profit-sharing could give little new benefit to the employer. Still, within these limitations there is room for much development; which, however, two influences may tend to retard. On the side of the employee, there is danger from the "new unionism"; on that of the employer, from the tendency of the time, which Mr. Goschen has noticed, for the shares in industrial partnerships to become divided among a great number of small proprietors. The attitude of leaders of working men such as Mr. Burt and Mr. G. Howell has, it is true been and is friendly to the movement, but these men are strong "individualists," and the new school of trades union leaders, who believe much in the action of the state and little in that of private individuals, will hardly view with favour a system which cannot but tend, to some extent, to give workmen interests separate from those common to all fellow-workers in their trade. On the other hand, the small investor, who has perhaps bought his shares in the open market at a high premium, and who is getting a return of not more than 5 per cent on the money laid out, may view with jealousy a system which at any rate appears to be intercepting some of the profits. The conviction is forced upon one that only a strong chairman could have carried through the South Metropolitan Gas Co.'s scheme noticed above. However, there is little reason to fear but that there will be many worthy successors to the present profit-sharers, who have found by experience that "it is twice bless'd; it blesseth him that gives and him that takes."

[D. F. Schloss, *Report on Profit-sharing*, Board of Trade Labour Department (c. 7458), 1894, contains an exhaustive history of British profit-sharing, with tabular statements of particulars. For most purposes this has superseded the previous Board of Trade Report of 1891.—It has been brought down to date in subsequent numbers of the *Labour Gazette*, July 1895, 1896, 1897, and Aug. 1898.—N. P. Gilman, *Profit-sharing between Employer and Employed*, London, 1889, 8vo. This is the leading general book on the subject in English. The French translation of Böhmert's *Die Gewinnbetheiligung*, Leipzig, 1878, 8vo, by A. Trombert, with a preface by C. Robert, Paris, 1888, 8vo, brings down the elaborate German work to the later date.—Sedley Taylor, *Profit-sharing between Capital and Labour*, London, 1884, 8vo; a reprint of essays which did much to arouse public interest on the subject.—T. Bushill, *Profit-sharing and the Labour Question*, London, 1893, 8vo; in part a reprint of evidence given before the Labour Commission, states the case from the side of a practical employer.—D. F. Schloss, *Methods of Industrial Remuneration*, London, 1893, 8vo; contains a very subtle and acute treatment of profit-sharing.—Among earlier notices of profit-sharing by Thornton, Mill, etc., may be mentioned the first advocacy of it by Babbage in the chapter—"a new system of manufacturing"—in his work *On the Economy of Machinery and Manufacture*, London, 1833, 3rd ed., 8vo.—Consult the quarterly *Bulletin de la participation aux bénéfices*, Paris, published by the association of French

employers for the practical study of the question. —The *Quarterly Journal of Economics*, Boston, vol. i. p. 232, contains an able article by R. Aldrich directed against the principle of profit-sharing.— For methods of participation, consult *Profit-sharing Precedents*, London, 1891, 8vo, by H. G. Rawson; with regard to South Metropolitan Gas Co., see letter to *Times* of 2nd January 1897, from Mr. G. Livesey, and Reports of Annual Meetings]. H. E. E.

PROFITS A PRENDRE. See PROPERTY, p. 230.

PROGRESS, INFLUENCE OF, ON VALUE. One consequence of the economic advance of society is a disturbance in relative values. As these are proximately determined by the conditions of supply and demand, it is plain that changes may arise either on the side of demand or on that of supply. When population increases, and wants expand, demand becomes on the whole greater, though it is very unequally distributed, and, brought into relation with the conditions of supply, produces different effects. Raw produce being obtained under the law of DIMINISHING RETURNS (*q.v.*), tends to rise in cost as larger amounts are needed. Manufactured goods, coming under the law of INCREASING RETURNS (*q.v.*), rather tend to fall. Hence the first of the derivative laws of value, viz. that manufactured goods fall relatively to raw produce. Money being a product of mines, it follows that manufactures tend to fall in PRICE as well as in VALUE.

Within each of the two great groups just mentioned there are several subdivisions. Thus Adam SMITH distinguishes between "three different sorts of rude produce" (bk. i. ch. xi.); the first, consisting of those things whose supply it is hardly possible to increase, may rise in value to any point to which effectual demand will ascend. Scarcity makes the value of such articles depend altogether on the demand. In a second class, where the power of industry in increasing supply is more effective, the value rises with the cost of producing the most costly portion of the commodity, and more especially in the case of the chief articles of food, the movement of value is guided by that of population. Corn cannot exceed in value the purchasing power of the consumers. There is, therefore, an element of truth in the idea of Adam Smith and Cairnes, that corn oscillates about a fixed-value point (*Wealth of Nations*, bk. i. ch. xi.; cp. *Leading Principles*, pt. i. ch. v. § 3), though the variations in the standard of living produce considerable fluctuations in this level (cp. Marshall, *Principles*, bk. vi. ch. xii. § 5). Meat, again, rises from a very low point until it becomes much more valuable than grain.

A further set of influences on the products of extractive industry comes from the varying portability of the articles. The value of such a commodity as timber does not rise so rapidly with the progress of a new country, but it rises greatly all the world over in the course of centuries.

Accessory products—such as hides and wool —have their values affected by those of the commodities with which they are closely connected. As meat rises, these accessory products tend to fall, but demand may be so increased as to raise both classes.

Minerals stand somewhat apart. Though they are, strictly speaking, limited in supply, yet the discovery of fresh fields, and the great improvements in working, tend on the whole to counterbalance the influence of scarcity so that, as against extractive products generally, they have *not* risen. In like manner manufactures can be grouped into classes. Those in which the raw material forms a large part of the value would naturally tend to rise. Where machinery and invention have been most developed to meet extensive demand, the fall ought to be most conspicuous. But both circumstances are often conjoined—as in the case of the textiles consumed by the poorer classes—and in that case the latter element on the whole prevails. Owing to the higher value of special skill, the more finely-wrought products worked by hand tend to rise.

The underlying conditions of increasing and diminishing returns are affected by the opening up of fresh sources of supply through improvements in transport, and particularly by the expansion of foreign trade. In this latter case the results are that (1) imported products fall in value; (2) raw produce exported tends to rise; (3) manufactured exports tend, generally speaking, to fall.

So far as regards the temporary fluctuations of the market, two sets of influences operate, viz. (1) the widening of the circle of exchanges, which tends to produce greater steadiness; as exemplified in the infrequent occasions of famines in modern times, and (2) the greater complexity of modern trading, which makes values less stable. But there is no doubt that retail values are far steadier than formerly.

The values of services are also affected in similar ways. Thus the tendency in recent years has been for unskilled labour to rise relatively to the lower forms of skill which are easily and cheaply acquired. The higher forms of skilled work depending on exceptional natural ability are, however, affected by the absence of an adequate supply and by the greatly increased demand. Hence the value of such services is now higher than ever (see WAGES, NOMINAL, AND REAL).

[See Adam Smith, *Wealth of Nations*, bk. i. ch. xi.—J. S. Mill, *Principles*, bk. iv. ch. ii.—J. E. Cairnes, *Leading Principles*, pt. i. ch. v.—A. Marshall, *Principles of Economics* (3rd ed.), bk. vi. ch. xii. §§ 1-5.] C. F. B.

PROGRESSIVE TAXATION. See TAXATION; GRADUATED TAXATION.

PROGRESSIVE WAGE, a mode of industrial remuneration, under which those employed receive, besides their time or piece-wage, a further premium or bonus in return for any efficiency shown by them beyond a specified degree. This premium may either vary according to the ability of the workman, or be a fixed sum after the defined standard has been reached. It may be given for the quality or for the quantity of the work done, and the recipients of it may be either individual workmen or collective groups. The term was first employed by M. Paul Pierre Leroy-Beaulieu, *Essai sur la répartition des richesses et sur la tendance à une moindre inégalité des conditions*, Paris, 1881, 2nd ed. 1883, 3rd ed. 1888, 8vo, and is fully treated in ch. vi. and vii. of Schloss, *Methods of Industrial Remuneration*, London, 1892, 8vo. Mr. Schloss refers students of the subject to *Rapports et documents de la section d'économie sociale*, Lyons, 1889. H. E. E.

PROMISSORY NOTE. By § 83 of the Bills of Exchange Act 1882, a promissory note is defined as an unconditional promise in writing made by one person to another, signed by the maker, engaging to pay on demand, or at a fixed or determinable future time, a sum certain in money, to, or to the order of, a specified person or to bearer. And by § 85 of that act, a promissory note may be made by two or more makers, and they may be liable thereon jointly, or jointly and severally, according to its tenor.

By § 89 the provisions of the act relating to bills apply, with the necessary modifications, to notes, the maker of a note corresponding with the acceptor of a bill, and the first indorser of a note corresponding with the drawer of an accepted bill payable to drawer's order. Protest of a dishonoured foreign note is, however, unnecessary.

A note made in the United Kingdom must bear an impressed *ad valorem* stamp. The Stamp Act of 1891 defines the term "promissory note" for its own purposes in somewhat wider language than the act above cited, so that instruments which would not be called in commerce promissory notes may require to be stamped as such, as for instance promises to pay out of a particular fund or on a contingency.

[See Chalmers on *Bills of Exchange*, ed. 4, and Byles on *Bills of Exchange*, ed. 15.] M. D. C.

See BANKING, BANK NOTE; BILL OF EXCHANGE.

The usual form of a promissory note made by a single individual is as follows:—

Due 4th July 1897.

London, 1st January 1897.

Six months (or any other time) after date I promise to pay (here insert name of the person to whom the debt is due) or order five hundred pounds value received.

Signed, A. B.

(The name of the maker of the note.)

PROMISSUM. A fine or levy offered in lieu of personal service and taken as part of a scutage or aid. *Scutagium Promissum* occurs in the *Red Book of the Exchequer* for the composition of non-effective tenants towards the levy for the scutage of Toulouse (1159). Hence promissum became a term for a *scutagium* or other feudal levy, which was said to be promised or compounded for in advance by the tenant. When the composition for scutages and military services became general, the word naturally became obsolete (see KNIGHT'S SERVICE). A. E. S.

PROMOTER. The word is generally used to denote one who is connected with floating joint-stock companies by procuring the assistance of brokers and underwriters to arrange for the issue of shares, and by forming the first board of directors. His connection with the company usually ceases with the commencement of its business career, but the tendency of recent decisions and legislation has been towards fixing the promoter with some greater degree of responsibility towards the shareholders. The inception of a public company frequently offers to the promoter the opportunity of securing large profits at the expense of the future shareholders, and this opportunity has been, in many instances, so unscrupulously used as to bring the office into great disrepute. But his functions, properly exercised, are both legitimate and useful, and have played an important part in the growth of joint-stock enterprise. R. W. B.

PROMPT. The date of payment under a contract of sale. In certain trades, goods sold under a "fourteen days prompt," or two or three months prompt, may be taken up earlier upon payment, but are at the latest to be paid for at the time indicated. R. W. B.

PROPERTY.

Property, the Right of, p. 228; I. What is meant by the Right of Property, p. 228; II. Restrictions on the Right of Property, p. 229; (*a*) Right of Possession, p. 229; (*b*) Right of Enjoyment, p. 229; (*c*) Right of Alienation or Disposition, p. 230; III. Divisibility of the Right of Property, p. 230; (*a*) Servitudes or Easements, p. 230; (*b*) Pledge or Mortgage, p. 230; IV. Origin of the Right of Property, p. 230; V. Grounds on which the Right of Property has been Justified, p. 231; VI. Real and Personal Estate, p. 233.

PROPERTY, THE RIGHT OF.—I. *What is meant by the Right of Property.*—The right of property is described by Professor Holland in his *Jurisprudence* as an extension of the power of a person over portions of the physical world. In its primary sense the proprietary right has reference to some material object. Further, it is what jurists term a right *in rem*,—that is, a right available against all persons other than the one invested with the right, like the right to life or to reputation, as distinct from a right *in*

personam,—that is, a right available only against some particular individual or individuals, such as a right arising out of contract. Thus the right of property is on its negative side a right which one person has to prevent every other person from meddling with a given material object. A correlative duty not to meddle with that object is imposed on every person other than the proprietor. For this reason KANT has observed that a man alone in the world could not be proprietor of anything, for there would be nobody to exclude from dealing with material objects. On its positive side the right of property does not readily admit of exact definition. It may be described as the amplest right of dealing with a material object known to the law. It may thus be distinguished from the right of possession, the *prima facie* right not to be disturbed, which the law recognises in him who actually has, and means to exercise control over, a thing, although he may have no legal title to it. More definitely the right of ownership may be said to include a right of possession, a right of enjoyment, and a right of disposition or alienation. But the signification of the term proprietary right is often extended by lawyers, and still more by the public, to include a variety of rights to which no material object corresponds, or which are only available against specific parties, but which have an exchange value and admit of pecuniary estimation. A recent English statute makes it larceny to abstract electricity belonging to another man, thus acknowledging that force as distinct from matter may become an object of property in the fullest sense. We call such an "incorporeal hereditament" as an advowson, property, though it is merely the right to appoint to an office of a certain kind. We call a franchise, such as the right to hold a fair or market, property (see FAIRS AND MARKETS; MARKET AS PLACE OF SALE). We apply the same term to various monopoly rights, such as copyright, a patent right, or a right to use a particular trade mark (see COPYRIGHT; PATENT; TRADE-MARK), though these are merely powers of hindering others from doing certain things. The right to have a contract performed, as well as the right to recover damages for a breach of contract or for a civil injury sustained, are by English lawyers termed CHOSES IN ACTION, and ranked under the head of personal property. So likewise are shares in a joint-stock company, which are really nothing more than rights to receive certain sums of money and to exercise certain rights under certain conditions. In ordinary conversation we speak of the GOODWILL and the book debts of a business (see DEBT) as property. In these and in other instances that might be cited we include in the term property everything which has pecuniary value. It is property in this extended sense of which we are thinking when we discuss the advantages or disadvantages of the institution. It is property in this extended sense which forms the object of economic study. Property in this wider sense, however, rests on property in the narrower sense, the exclusive control of particular material objects by particular individuals. On the other hand, certain material objects such as air and running water have commonly been held incapable of appropriation. Wild creatures — beast, fowl, and fish — are not objects of property so long as they remain in their wild state. They admit of property only when they have been killed or tamed. Hence the enactment in so many countries of laws intended to protect the monopoly of sport (see GAME LAWS). Other classes of material objects have been regarded by particular legal systems as at least incapable of private ownership. Under the Roman law consecrated buildings and places of interment and the walls and gates of cities were so regarded. Roads, harbours, the beds of rivers, and the use of their banks, were also withdrawn from private ownership and termed public things. Similar restrictions of the range of private ownership may be found in modern systems, and it is frequently debated among ourselves whether public authorities should not have a monopoly of certain undertakings. It may be noted that there is nowhere any precise legal definition of a material object.

II. *Restrictions on the Right of Property.*—The exercise of the rights above said to be comprised in the proprietary right, is not, however, unlimited. Thus (*a*) as regards the right of possession, the proprietor, without giving up his property, may legally deprive himself of control over it to a greater or lesser extent, for a longer or shorter time, and then he remains bound by his own act. The owner of a house has no right to live in it when he has let it to a tenant. The owner of a watch has no right to take it out of the keeping of the pawnbroker to whom he has pledged it.

(*b*) As regards the right of enjoyment, the *jus utendi et abutendi*, the right of getting whatever profit or pleasure can be got out of the object of property, the proprietor is again restricted in various ways. In the first place the state may take, by way of taxation, an undefined proportion of property or of the income arising from property. The state reserves to itself the right of buying compulsorily any property which may be necessary for the public service, and it confers this right upon various corporations, such as railway companies. In the second place, restraints are imposed on the proprietor's use of his property in order to prevent his injuring his fellow-citizens. The principle of these restraints is expressed in the maxim, *Sic utere tuo ut alienum non laedas* (So use your own as not to injure what is another's), but its application is more

restricted than this statement would suggest. A man may do many things with his own property which interfere with the interests or enjoyment of other persons. Nevertheless there are limits to his freedom in this respect. Thus a proprietor may not accumulate upon his premises nuisances dangerous to life and health. He may not discharge unlimited quantities of smoke from his chimneys. He may not keep buildings which overhang a thoroughfare in a rickety and dangerous condition. He may not expose in his windows writings or pictures which outrage decency. He may not carry on dangerous or offensive trades, such as the manufacture of explosives or manures, save under the conditions prescribed by law. Similarly a man may not drive his horse and cart at a dangerous speed or discharge his gun in a public thoroughfare. In the third place, where the object of property is a sentient being, the owner's power of inflicting pain has been limited by the most civilised systems of law. Thus under the emperors the Roman law came by degrees to protect the slave from being killed or tortured by his master, and in several countries at the present day gross and wanton cruelty to animals is a punishable offence.

(*c*) The right of alienation or disposition has at different times been subject to different restrictions. The power of alienation in the owner's lifetime, is restricted generally in French Law, and as regards English Law, was curtailed with reference to an important species of property by the strict feudal law of entail. Lastly, certain acts of alienation have been rendered illegal as contrary to public policy (see ENTAIL, LAW OF).

When this country is neutral in a war it is an offence for a British citizen to supply either belligerent with ships, arms, or military stores of any kind. The law did not formerly enforce a conveyance of English land, and does not now enforce the transfer of an English ship—to an alien. Similar examples of restraints upon alienation might be multiplied.

Again, the testamentary power arose at a comparatively late period of history, and has often been narrowly limited. We are told that at Athens even the childless man could not dispose of his estate by will until the time of Solon's legislation, 594 B.C. The testamentary power is said to have been first recognised in Rome by the law of the Twelve Tables, 450 B.C. Even in the later Roman law children who had been disinherited without cause could recover part of the estate by the *querela de testamento inofficioso* (plaint of an undutiful will). Early English law similarly recognised the claims of the family. Later in the middle ages the testamentary power over land was restricted by the institution of entails. In modern times the feeling that the estate belongs to the family rather than to its head, and the revolutionary abhorrence of PRIMOGENITURE, produced the clauses in the *Code Napoléon* which limit the power of testamentary disposition to one-third of the estate if the testator has two children; to one-fourth if he has three, and so on in proportion, and similar provisions are found in all continental systems of law. Even where there are no children the *Code Napoléon* reserves a portion of the estate to surviving parents (see BEQUEST, POWER OF).

III. *Divisibility of the Right of Property.*—The right of property is to a certain extent divisible. An instance of this divisibility is seen in the extraordinary number of interests which English law has allowed to be created with reference to the same piece of land. Another instance, common to all civilised systems, is found in *jura in re aliena*, rights held by one person over the property of another independently of the owner's consent, and available not only against him but against all third parties. These rights fall under two principal heads—(*a*) what the Romans called SERVITUDE, and we call easements (see EASEMENT) or *profits à prendre*—rights to use or enjoy another man's land for a particular purpose, *e.g.* to walk or ride across it, to receive a stream of water across it, to dig turf or gravel, and so forth; (*b*) the right of pledge or mortgage, the right of a creditor to whom property has been pledged or mortgaged to keep it until he has been paid, and in case of default to sell it or to foreclose, and himself become the owner.

IV. *Origin of the Right of Property.*—Such being in outline the right of property, we have next to consider how this right came into existence. The original motive power of appropriation was undoubtedly the blind instinct to live and to enjoy. No question of moral right or of public expediency would have occurred to a primitive savage in want of food or shelter. The idea of moral or legal right to property came later by a gradual evolution. The early forms of property have, in our own time, attracted the attention of lawyers, historians, and economists. Much curious information has been collected, but none of the theories yet propounded can be taken as fully proved. It is a very general opinion that some form of joint ownership preceded the appearance of full individual property. That in early times the family rather than any of its members was regarded as the real proprietor seems to be established. The theory of the village community in the east and in the west, so attractively set forth by Maine, has been reduced to uncertainty by recent criticism. FUSTEL DE COULANGES, Seebohm, and Baden Powell have shown that the evidence in favour of what is known as the "mark system" in western Europe, and of the village community in India, is by no means conclusive (see VILLAGE COMMUNITIES). In the higher

stages of progress individual property appears, as well as in the most civilised states, ancient and modern, all but universal.

V. *Grounds on which the Right of Property has been Justified.* From early times the advisability of maintaining the right of individual property has been called in question. It is obvious to every reflecting person that, even under the best legal systems yet devised, property is often acquired and distributed in unsatisfactory ways. Whilst some attain wealth by mere luck or by sheer dishonesty, many with fair industry and ability cannot gain a modest competence. Some are corrupted by the superfluity of their possessions, and others are dwarfed and embittered by privation. Children inherit the condition of their parents—the riches which they have not earned and the penury which they have not deserved. And as wealth is the most potent instrument of acquiring more wealth, these abuses and inequalities do not disappear. At some periods of history they have grown more and more grievous through a long lapse of years. At other periods, like our own, they are in process of abatement, but so slowly that ardent and enthusiastic reformers lose patience. It is easy, therefore, to understand the philosophical criticisms of the principle of private property which begin with the Republic of Plato if not earlier. And since the desires of man are unbounded and the return to his labour is commonly meagre, it is equally easy to understand how the arguments of students have found at times a powerful response in the passions of the multitude, and how, whenever old moral traditions have been shaken, or the heavy pressure of authority has been diminished, there begins a more or less disguised war against property. Yet the instinct of property is so deeply rooted in human nature, and the benefits of the institution are on the whole so great, that it has never wanted philosophical defenders. The communism of Plato was combated by Aristotle in a brief passage of the *Politics*, which contains many of the best arguments since used on that side of the controversy. Aristotle points out that what is common property is no man's care; that private property is inexpressibly sweet to man; that the abolition of private property, far from destroying selfishness, merely deprives men of the power of doing unselfish things. The Romans, an eminently practical and acquisitive people, were too busy in getting and spending to trouble themselves seriously as to the speculative grounds on which the acquisition of wealth could be justified. The Christians of the first age passed rapidly to the other extreme of feeling. They regarded this world simply as the thoroughfare to the next, and asceticism here as the best way of meriting bliss hereafter. They also felt a sincere and profound compassion for the poor and helpless, whose claims had been but slenderly considered in the magnificent Roman empire. These feelings lost much of their intensity as the Christian church came to comprise a greater number of ordinary people, and finally became a state church to which all had to render outward submission. But the doctrines of the early Fathers were transmitted to the canonists (see CANON LAW; FATHERS, THE, THEIR ECONOMIC TEACHING AND INFLUENCE). They seem to have regarded community of goods as the ideal order of society, private property as a necessary evil of the actual world to be mitigated and atoned for by bountiful alms, trade as an occupation hardly compatible with the character of a devout Christian, and the receipt of interest for the use of money as altogether sinful. These principles could never be applied with logical severity. They could not even restrain the clergy from acquiring immense wealth. With the restoration of order in Europe the accumulation of riches began once more, and with the renaissance the spirit of enjoyment grew stronger. The ideas which pervaded the Canon Law became obsolete, and the theory of property was again considered without reference to theological prepossessions. In the philosophy of the 17th century the institution of property was justified upon grounds of a much more artificial character. HOBBES held that in the state of nature which preceded civil society, every man had an equal right to all things, *i.e.* to take what he could, but that this, like other natural rights, was surrendered at the making of the social compact, and that all subsequent rights of property owe their existence to the will of the civil power. The right of property would thus ultimately rest on the SOCIAL CONTRACT from which the civil power draws its authority. But the social contract is now admitted to be a mere philosophical figment for which there is no historical evidence. LOCKE argued that, since every man has a natural right to his own person, he has a natural right to the fruits of his labour, and on this argument he rests his defence of private property. But this justification would not extend to property which was not the result of the proprietor's labour. Even if we put aside the case of property obtained by gift or bequest, we shall find it impossible to say how much of the product in the complicated modern process of production is to be ascribed to the labour of any one of the persons employed. But worse still, to say that property in the work of our hands is sanctioned by the law of nature amounts only to telling us that it is just, not why it is just. J. J. ROUSSEAU in his *Social Contract* adopted a theory of property resembling that expounded by Locke. But in his later works he condemned the institution of private property altogether. Apparently he was led to this conclusion by his belief that all men are naturally good and reasonable, and if

left to themselves would easily and peaceably satisfy their simple wants. The savage state he believed to be one of virtue and happiness, and civilisation he regarded as the cause of evil and misery. Private property, at once the effect and the condition of civilisation, he therefore assailed as pernicious. Upon this theme he expressed himself with all his fervid eloquence, and he found a numerous public to sympathise with his declamations. A crowd of writers, inferior in genius but equally daring, helped to diffuse his doctrines. Their influence was distinctly felt in the French revolution. Rousseau is the inspirer of nearly all the anarchist and communist movements of the 19th century. Even the socialists, though they have dropped some of his first principles and have adopted some of the conclusions of modern science, have inherited no small portion of his spirit. Bentham justified private property on a more solid ground — on its expediency, or tendency to contribute to the greatest happiness of the greatest number. Property, he said, was a basis of expectation. The recognition of property enabled a man to project himself into the future and to work for remote ends, thus benefiting others as well as himself. The late Professor Green, in his *Principles of Political Obligation*, defends the institution of private property on the ground that it is necessary to the free development of the individual which is the common interest of society. This argument again rests on expediency—not in BENTHAM'S sense of happiness but in the sense of the development of character in the citizen, who is assumed to be working for the common good.

It is on expediency again that the question to what extent certain special classes of undertakings, such as railways, waterworks, gasworks, drainage works, etc., ought to be the property of public bodies, is advocated. The advantages of holding by the MUNICIPALITY, and possible liberality of treatment of the inhabitants, are compared with the more economical management when the works remain private property.

The best argument for the institution of private property is the impossibility of finding any other principle to take its place. Self-interest is not, and should not be, the only motive to labour, but it is a motive which no experienced person will be ready to dispense with as unnecessary. A series of experiments, now extending over two thousand years, has shown that even voluntary communism, including only those who feel a vocation, is an unnatural state which cramps and at length deadens human energies. A compulsory communism embracing all the idle, the incapable, and the selfish would be a still more disastrous failure. At the present day the ideal of COMMUNISM (*q.v.*) has made way for that of SOCIALISM (*q.v.*). The socialist proposes to vest all the means of production in the state, and to render them henceforth incapable of private acquisition. All members of the community would receive either wages or a pension from the state, and this would remain their private property, which they might either spend or save at pleasure. Competition having come to an end, the scale of wages and pensions would be fixed by the state. Private property would thus continue to exist, although in an attenuated form. The criticisms brought against communism do not apply with equal force to socialism, but it may still be doubted whether any socialist scheme affords that scope to the instincts of enjoyment and accumulation which it is desirable that they should have. Under such a system no man could better his condition or transmit any advantages to his children. He could never feel secure that his condition would not suddenly be made worse by a vote of the majority. The affection with which the proprietor regards his own house or his own field would be impossible to one who could never by any chance be anything but a lodger and a day-labourer. The property of the socialist citizen, like that of the poorest class in our actual society, would hardly extend beyond the necessary food and clothes and furniture. That the distribution of wealth made by an average legislature would be really fairer than that which *is* now brought about by circumstances is extremely doubtful. That anything short of a permanent reign of terror would make energetic and ambitious natures acquiesce in it seems most unlikely. Such natures are in a minority and might be extirpated, but then what would become of progress and civilisation? But there is little fear of the final prevalence even of SOCIALISM. Revolutions may despoil one class to enrich another, but the victorious party is made up of human beings with passions like those of the vanquished. The French peasant to-day is certainly not less greedy of gain, nor less attached to his patrimony, than the French *seigneur* of three hundred years ago. On the other hand, the distribution of wealth may be improved without the abolition, total or partial, of private property. The improvement of law, the spread of education, the growth of co-operation, the accumulation of capital, and the fall of interest tend to raise the average of well-being and security. If this process be not interrupted by rash social experiments or fierce social convulsions, it may lead to the most beneficent results.

[For a discussion of the nature of the right of property, see Holland, *Jurisprudence*, pt. ii. ch. xi., and the authorities therein referred to; for the investigation of the early forms of property, see Maine's works, especially *Ancient Law* and *Village Communities in the East and West*.— Laveleye, *Propriété Primitive* (translated into

English as *Primitive Property* by Marriott, London, 1878; into German, under title of *Das Ureigenthum*, by Prof. Bücher, Leipzig, 1879), with instances as to holdings supplied by himself (see article on É. DE LAVELEYE.)—Fustel de Coulanges, *Origin of Property in Land.*—Seebohm, *English Village Community.*—Baden-Powell, *Land Tenures and Land Revenue Systems of British India and the Indian Village Community;*—On the theoretical grounds of right of property see Hobbes, *Leviathan.*—Locke, *Civil Government.*—Proudhon, *Système des Contradictions Économiques ou Philosophie de la Misère*, etc.—Rousseau, *Œuvres.*—Bentham, *Theory of Legislation* by Dumont.—Green, *Principles of Political Obligation.*—Duke of Argyll, *Unseen Foundations of Society.*—Bonar, *Philosophy and Political Economy*, and the literature of political philosophy and of socialism generally.]

VI. *Real and Personal Estate.*—The distinction between real estate and personal estate is the most important division of things in English law. It corresponds roughly to the division between things immovable and things movable in Roman law. But the correspondence is not exact. Real estate consists of lands, tenements, and hereditaments, but it does not comprise all interests in land. Thus, an estate for a term of years is personalty whilst an estate for life is realty. This is due to the fact that estates for a term of years were hardly known at the time when the law of real property first took a definite shape. Moreover the progress of civilisation has produced new forms of property which can hardly be termed movable or immovable, and which have been included under the head of personal estate. Patents, trade marks, and copyrights are regarded as personalty. Shares in a partnership or a joint-stock company are personal estate, however much land the partnership or the company may hold. When a sale of land has been agreed upon the land is regarded by the law as personalty, whilst money which, by agreement, is to be laid out on land becomes realty. Thus there is no broad and clear distinction between real and personal estate. The origin of the distinction lies in a difference of procedure. Actions were formerly distinguished as real and personal. Real actions were those in which the very thing (*res*) in dispute could be recovered. Personal actions were those in which no more than pecuniary compensation could be obtained. But, practically, land was the only thing which could be recovered in kind, and so land became known as realty (see CHATTEL).

[See Williams, *Principles of the Law of Real and Personal Property.*—Digby, *History of the Law of Real Property.*—Markby, *Elements of Law*, §§ 128, 129.] F. C. M.

PROPERTY TAX. See TAXATION.

PROPIOS Y ARBITRIOS, the proceeds of local Spanish excises and rents derived from municipal pasture-lands and tenements, such as inns and stalls in the markets. They were applied to the expenses of police, public instruction, and repair of bridges. They generally left a considerable surplus, which in times of need became an object of taxation by the state.

[Canga Arguëlles, *Diccionario de Hacienda* (London, 1826).] E. CA.

PROPORTIONAL TAXATION. See TAXATION.

PROPRIETOR. See PROPERTY.

PROSPECTUS, the name for a notice calling the attention of the public to the issue of any stock or shares, or debentures or other securities. It is generally accompanied by a form of application for the use of persons who are willing to subscribe, and gives particulars as to the amount issued, the security offered, and other matters which intending subscribers may wish to know. If it is intended to apply for a quotation on the London stock exchange, the rules of that institution require the prospectus to be publicly advertised, and in the case of an issue of the shares or debentures of a limited company, they also require the company's memorandum of association to accompany the prospectus.

The persons under whose authority a prospectus is published are under general rules of law liable for fraudulent or recklessly untrue statements contained in the same, and if the prospectus refers to the shares or debentures of any company registered under the Companies Acts, the requirements of the Companies Act 1867, § 38, and the Directors' Liability Act 1890 (as to which see DIRECTORS, LEGAL DUTY OF), must be complied with. The responsibilities imposed by the first named act falls on the "promoters, directors, and officers of the company knowingly issuing" the prospectus, but the provisions of the Directors' Liability Act 1890 (see PROMOTER), with reference to prospectuses, affect a much larger circle of persons, viz. "every person who is a director of the company at the time of the issue of the prospectus or notice, and every person who, having authorised such naming of him, is named in the prospectus or notice as a director of the company . . . and every promoter of the company and every person who has authorised the issue of the prospectus or notice."

Some of the continental statutes make the issue of a prospectus, containing certain specified particulars, compulsory in certain events. Thus the Italian "Codice di Commercio," in the case of the public issue of shares in a company (§§ 129 and 130), requires a prospectus giving particulars as to the objects of the company, its capital, its memorandum of association, the share of profits reserved to promoters to be submitted to each subscriber for shares, and signed by him unless he signs the draft articles of the company, and in a similar way German company law requires the form of application, in which (in the case of an issue of shares not entirely taken over by the promoters of the company), intending shareholders subscribe, to contain a number of prescribed particulars concerning the formation and the constitution of the company (German Mercantile Code, § 209 c.).

The German Börsengesetz of 1896 makes a prospectus compulsory in the case of any issue of securities intended to be introduced on any German stock exchange, excepting, however, the government stock of the German empire and the German states, and provides, that any such prospectus must contain information sufficiently explicit to enable the public to form an opinion as to the value of the security offered for subscription; the same statute also provides that the authors of any such prospectus are to be liable for wilful or reckless misstatements, or wilful or reckless omissions (Börsengesetz, §§ 38 and 43). The discussions of, and the evidence taken by the imperial commission, on whose recommendation the statute in question was passed, were published and contain valuable information on the subject. E. S.

PROTECTION, AND PROTECTIVE SYSTEM. Like the opposed expression FREE TRADE, the word "protection" has acquired a somewhat narrow historical meaning. It is used to denote the policy of encouraging native industries by the use of bounties, or by the imposition of higher duties on foreign productions. Though in its essence the same as the older MERCANTILE SYSTEM, whose place it has occupied, its form is altered to suit the changed conditions of modern times, and to meet the criticisms passed on mercantilism by the school of Adam SMITH. Protectionist writers lay less weight on the advantage of retaining the precious metals, and more on the benefits to production that are the outcome of their policy. Another new element is the higher value attached to future development in contrast with present gain. To build up great national industries even by the sacrifice of utility on the part of existing consumers, is regarded as the normal course in a well-managed state. The general tendency towards the extension of governmental activity furnishes an additional presumption in favour of the regulation of foreign trade in the interests of national industry. There are, in addition, special cases where the ordinary arguments for commercial liberty lose their force (see FREE TRADE), and these are embodied in the protectionist theory. Thus regarded, protection may be truly said to have existed for little more than a century. Its earliest effective appearance in a general statement is probably in the famous *Report on Manufactures* (1791) of the American statesman, Alexander HAMILTON. For Europe, the wars accompanying the progress of the French revolution mark the starting-point of the modern protective system which was exemplified in the measures adopted by Napoléon I.

In common with all systems of economic policy, protection springs from a set of conditions, sentiments, and beliefs. Just as the mercantile doctrine naturally followed from the historic conditions and theoretic views of the 16th century, as LAISSEZ-FAIRE was the product of the doctrines and economic facts of pre-revolutionary France, and the MANCHESTER SCHOOL arose from the circumstances and the economic theories of 19th-century England, so has the protective system been powerfully aided by continued warfare. The need for maintaining economic independence, the danger of an "invasion" of foreign goods, the "tribute" paid to foreign producers from whom goods are purchased — such are well-known protectionist pleas which show by their form that they have originated in a time of international conflict. But wider and deeper than this militant feeling is the sentiment of nationality. To exalt a particular country without reference to the interests of other nations is the avowed object of the system of protection. It claims, as in the title of LIST'S work, to be the *national* system in contrast to the cosmopolitanism of the PHYSIOCRATS and Adam SMITH. To the loyal citizen the promotion of native industry and economic interests seems a duty nearly as imperative as the defence of the national territory against invasion. Protection is thus one side or aspect of national sentiment, influenced indeed by a special bias.

The close affinity of the protective doctrine to the feeling of nationality is evidenced by the large intermixture of political considerations in the ablest arguments presented in its support. Some of the most plausible contentions of CAREY and LIST are those in which the economic element is absent, or subordinate to the political one. The advantages of diversified industry, of husbanding national resources, or of maintaining certain industries that would disappear under FREE TRADE are not believed to be mainly economic. They belong rather to those higher parts of national life that the mere economist is supposed to neglect. "Protectionists"—as J. S. MILL has forcibly said—"often reason extremely ill, but it is an injustice to them to suppose that their protectionist creed rests on nothing superior to an economic blunder; many of them have been led to it much more by consideration for the higher interests of humanity than by purely economic reasons" (*Principles*, bk. v. ch. x. § 1).

But though patriotism is undoubtedly a contributory to the formation of the protectionist belief, it is more than doubtful whether it can justly be described as "enlightened." Many of the stock arguments in favour of restrictions on foreign trade show such an entire misconception of ordinary economic facts, and so completely distort the true proportions of things, that their acceptance is of itself conclusive proof of the widespread ignorance on which the ordinary protectionism rests for support. The BALANCE OF TRADE is still, in spite of innumerable refutations, referred to as an infallible test, and the necessary connection between imports and exports is totally ignored. That

"protection makes high wages" is a well-accredited article of popular belief in the United States, just as British protectionists imagine that "protective duties would increase employment."

Another influence which makes for protection is even less commendable. "Not only the prejudices of the public, but, what is much more unconquerable, the private interests of many individuals" (*Wealth of Nations*, bk. iv. ch. ii. 3rd par. from end), oppose the abandonment of protection. The special interests of certain classes of producers which are, as Adam Smith points out, "always in some respects different from, and even opposite to, that of the public" (*Wealth of Nations*, bk. i. ch. xi. last par.), have a great effect on the formation and retention of high tariffs. It is beyond dispute that the developments of protection during the last twenty-five years have been accompanied by persistent demands for aid on the part of industries alleging the pressure of foreign competition, which have in a great many cases been conceded by legislators.

The foregoing are the chief contributory influences to the formation of the system of protection, but additional force has been given to the last-mentioned by the remarkable revolution in methods of production, agencies of transport, and the level of prices that has taken place. As new countries are opened up, and older ones develop special branches of industry, competition becomes far keener and thus the weaker producers are gradually driven out. Cheaper carriage by both land and sea brings fresh competitors into the field, and diminishes the "natural protection" that formerly existed and led Adam Smith to conclude that "the free importation of foreign corn could very little affect the interest of the farmers of Great Britain" (*Wealth of Nations*, bk. iv. ch. ii.) Now, article after article, previously confined to home production, enters the list of imports, as illustrated for Great Britain in respect to beef and milk.

Tending in the same direction is the fall of gold prices (see BI-METALLISM), which temporarily encourages exports from countries using other standards, and causes producers to receive an apparently diminished reward. As the cry for protection by the state is the product of suffering, it is almost certain to grow in volume at a time of industrial and commercial depression.

There is, besides, on the part of the governments of the world a growing need for revenue. Public expenditure advances by leaps and bounds, as armies and navies are increased and the attributions of the state increase in number and weight. The means for supplying these enlarged demands are, however, limited. Direct taxation is felt at once, and is often highly unpopular. So are most excise duties. It is therefore a relief to the harassed financier to find that a customs tariff with a strong protectionist element is regarded with approval by the people, while it brings in a considerable revenue. Fiscal considerations have helped in moulding French, German, American, and Colonial tariffs.

In seeking to estimate the real economic effects of the protective system it is well to begin by emphasising the general validity of the arguments for the opposite policy of FREE TRADE. It is unnecessary to repeat the statements given under that head, or to enumerate again the various exceptions made. As Prof. Nicholson well remarks, "these exceptions are simply part of the casuistry of economics; they are like the discussions by moral philosophers of the justification of occasional mendacity. Free trade like honesty still remains the best policy" (*Britannic Confederation*, p. 118).

The first result of the protective system is the increased cost of the articles that come under its operation. Duties on imported commodities, so far as they are really protective, narrow the market, and by partially excluding the most effective producers, raise the general cost of production. Protection to agriculture makes food dearer; if applied to manufactured articles it raises their value relatively to other things. Hence comes that injury to the consumer on which free traders have so often insisted.

Again, in a developed protective system, it is impossible to avoid placing burdens on producers. The line between "producers'" and "consumers'" wealth cannot be so marked off as to spare the former. The finished product of one industry is the "raw material" of another, while food, though "consumers' wealth," is an important element in the maintenance of a primary factor of production-labour. The more complex and highly organised the industrial system, the greater the tendency of protection to react injuriously on many forms of production. The assistance given to special industries is thus to a large extent counteracted by the increased cost of materials and of the means of subsistence.

These losses, which are serious in the case of protected industries that apparently gain by the system, become still graver when we pass on to forms of production not requiring artificial support. The great exporting industries obviously lose through protection, without any compensation; their development is checked, capital and labour are diverted to less profitable employments, and the whole national economy is lowered in efficiency. The great burden of restrictive duties falls on the staple industries of a country.

A further result of protection is its tendency to limit INTERNATIONAL TRADE. By checking

imports it checks exports, and reduces the benefits derived from exchange. More especially is this true in regard to competition in neutral markets. A country with a higher level of cost, and hindered in exchanging, is unable to meet another country with lower cost and less restrictive regulations.

The actual arrangement of a protective system is an additional cause of difficulty. A scientific system of protection—such as that contemplated by HAMILTON or LIST—would involve the most refined and difficult considerations. Not only the present situation, but the future prospects of the multifarious industries of the nation, have to be duly weighed in the balance, and assistance distributed in proportion to their ascertained merits. Existing tariffs in no way satisfy these rigorous conditions. Adopted in haste and under the pressure of particular interests, they fail to satisfy even intelligent protectionists, and justify Prof. Sidgwick's assertion "that protection, as actually applied under the play of political forces, is sure to foster many weak industries that have no chance of living without artificial support, and to hamper industries that might thrive independently by the artificial dearness of some of their materials and instruments; so that it turns out a dangerous and clumsy, as well as costly, instrument of industrial competition" (*Stat. Journal*, vol. xlviii. p. 602).

As minor results of protection the greater difficulties of fiscal administration and the loss incurred through the encouragment given to smuggling, may be noticed. But the closer connection between politics and industry is a greater evil. When immense monetary interests depend on the course of legislation, the risk of corruption in political life is increased, and producers are trained to watch and guide for their own interest the measures submitted to the legislature. If protectionists appeal to political more than to economic arguments, it by no means follows that even on political grounds their case is a strong one.

Regarded from the strictly national standpoint, the protective policy appears to be mistaken, not in its aim,—that of advancing national industrial life,—but in the methods by which it seeks to attain it. Viewed in relation to the interests of the world as a whole, its evil consequences are more readily apprehended. Granting that advantages are obtained by a nation in the growth of young industries, the transfer of labour and capital to its territory, or by the sacrifices imposed on foreign producers, it follows that its gains are made at the loss, and more than equivalent loss, of other countries. "International utilitarianism" would therefore suggest the abandonment of the system.

Protective Duties are the chief expedient by which protection has been carried out, but in certain cases where they cannot be used, the method of BOUNTIES has been substituted (see also BOUNTIES ON SUGAR). Though having the same general tendency, a bounty is less likely to be carried to the same extent, as its cost is more readily perceived and more keenly felt. NAVIGATION LAWS may also be noticed as an important protectionist expedient, though for the most part they operate either as duties or bounties.

Some protectionist writers object to confining the idea of protection to the case of foreign trade. They prefer to regard it as "the proper attitude of government towards the industrial development of a nation" (W. D. Lewis, art. "Protection," *Chambers's Encyclopædia*, vol. viii. p. 444). Employed in this wider sense, protection has points of connection with state socialism (see SOCIALISM, STATE), and also with paternal government (see also POLICE), but this use of the term is too wide and vague to be of any service. At present most civilised states have adopted protection. In fact Great Britain, with its dependency India, and the important self-governing colony of New South Wales, are the chief examples of pure free-trading communities. Belgium, Holland, Denmark, and, till recently, Switzerland have such low tariffs that relatively to other states they may be regarded as free trade in policy.

[The works given under FREE TRADE will also serve here. Amongst protectionist writings the most important are:—A. Hamilton, *Report on Manufactures*, *Collected Works* (ed. Lodge), vol. ii.; also in *State Papers and Speeches on the Tariff* (ed. Taussig).—F. List, *Das nationale System* (trans. S. Lloyd, 1885).—H. C. Carey, *Social Science*, 3 vols. 1858-9.—R. E. Thompson, *Protection to Home Industry*, 1886.—S. N. Patten, *The Economic Basis of Protection*, 1890.—See also U. Rabbeno, *Protezionismo Americano*, 1893 (translated 1895).—W. Roscher, *System*, vol. iii. pt. ii. ch. vi., sketches the history of the protective system.] C. F. B.

PROTEST (of Bills). A protest is a formal certificate drawn up by a notary public, to attest some fact, as for instance the dishonour of a bill of exchange. In continental countries all dishonoured bills must be protested. English law seems to have adopted the rule as a matter of comity. When a foreign bill is dishonoured in the United Kingdom it must be protested in order to preserve the holder's right of recourse against the drawer and endorsers, but protest is unnecessary as against the acceptor. A foreign note need not be protested. Protest is also required as a preliminary to acceptance or payment for honour of any dishonoured bill whether inland or foreign. Provision is now made by the Bills of Exchange Act 1882, § 94, that when the services of a notary are not available, a dishonoured bill may be protested by any householder in the presence of two witnesses.

[Byles on *Bills of Exchange*, 15th ed., and Chalmers on *Bills of Exchange*, 4th ed., tit. protest (see NOTING OF BILLS).] M. D. C.

PROUDHON, JOSEPH (1809-1865), born at Besançon, came of a very poor family—his father was a cooper, his mother a cook; he worked as a compositor in a printer's office till he was thirty years old. Thus he was a self-taught man, but the trade he followed supplied him with the opportunity of reading and of self-instruction.

He published early several papers which were much noticed, one especially, in 1839, on the advantage of the observance of Sunday, which is still frequently quoted. But it was particularly his famous pamphlet *Qu'est-ce que la Propriété?* published in 1840, which secured him fame and election as deputy to the Constituent Assembly during the revolution of 1848, at the same time involving him in a lawsuit.

He was one of the most prominent and most dreaded opponents of the *bourgeois* during this revolutionary period, the greater part of which, three years, he passed in prison. He did not, however, oppose the second empire, and after the accession of Napoléon III. he gave up politics and followed the quiet life of the middle class till the end of his days.

His complete works consist of thirty-seven volumes, without counting fourteen volumes of correspondence. He wrote his books like his newspaper articles, with great rapidity, discussing everything and anything, with an absence of method and a disdain for order which makes the reading of his works more difficult perhaps even for his fellow-countrymen than for foreigners. Hence he is but little read. He loved dialectic, and to play with ideas like a juggler who rattles and clashes the most incongruous things together. He loved clap-trap expressions, "Property is theft," and "God is evil," but in reality he admitted the lawfulness of property and the existence of God.

A self-styled disciple of Hegel—though it was by no means clear that he really understood that author,—he had raised contradiction to the level of a principle, continually setting forth thesis and antithesis but rarely synthesis.

A violent and often unfair controversialist, he largely unsettled accepted and established opinion, but notwithstanding his proud motto *destruam et ædificabo*, he constructed nothing, he left behind him neither definite programme nor school, properly so called.

Proudhon is generally classed among socialists on account of his attacks against landed property and interest. But as a matter of fact he criticised socialist doctrines with as much violence as orthodox doctrines. Neither was he a communist, since he called their doctrines—"the religion of misery," the "emulation of slothfulness,"—"a social bugbear." 'La communauté est encore le vol! Entre la propriété et la communauté, je construirai un monde!" (*Organisation du Crédit*, in fine). Nor was he a state socialist, since he said that the madness of appealing to the state was the "leprosy of the French mind." If a name must be given to his doctrine, it would be "anarchy." Moreover it was he who used this word for the first time (or rather, the two words *an archie*) as expressing, not disorder and chaos, but, on the contrary, the highest and most perfect form of social organisation. "Although a friend to order, I am, in every sense, anarchist" (*Qu'est-ce que la propriété?* 1st mémoire, ch. v.). Besides, he said, "The real form of government is anarchical" (*Les confessions d'un Révolutionnaire*, p. 122).

However, the small number of socialists who still consider themselves his disciples do not term themselves anarchists, but *mutualists*. They understand by this—and indeed it was their master's view—that society ought to be founded on *equality* and *reciprocity* of the services rendered, whilst the actual social system is only founded on the *subordination* of services. It is to this that social justice is reduced, which he opposes to the old watchword "Fraternity"—dear to the Utopian socialist. "It is not without reason that the popular imagination has provided justice with the balances. Justice, in fact, applied to economy is nothing but a perpetual balance, or, to express myself still more exactly, justice is nothing but the obligation imposed on all citizens and all states in their relations of mutual interest, to conform to the law of equilibrium. . . . The economist maintains that he has no ground whatever on which to intervene in the determination of this equilibrium, and that the beam must be allowed to oscillate after its own way. The idea of supporting it is absurd."

But how was this ideal of the reciprocity of services to be attained? Proudhon flattered himself that he had realised it by establishing a *Banque d'Échange*[1] (see LABOUR EXCHANGE; OWEN, ROBT.).

[1] The object of the *Banque d'Échange* was explained by Proudhon thus: (1) "to secure to every member of Society, without the interposition of money, all produce, commodities, merchandise, services or labour; (2) subsequently to procure the reorganisation of agricultural and industrial labour by changing the condition of the producer." Hence Proudhon's institution must not be confounded with OWEN's "Equitable Labour Exchange," although it also aimed at bringing producer and consumer into direct relation with each other, and at the suppression of intermediaries, of parasitical deductions and charges, and of money. But though Proudhon's *Banque d'Échange* was to receive all the produce and merchandise to it, it issued, not labour notes, but bank notes, on the security of the produce deposited, which was exchanged for equal value. But Proudhon, no more than Owen, foresaw that in consequence of the inconsidered multiplication of these products, the security would become valueless. (This system may be compared with the views on *Compatibilisme Social* set forth by MM. Solvay and Hector Denis in the *Annales de l'Institut des Sciences Sociales* of Brussels, 1896).

As a matter of fact he realised his idea by the establishment of the *Banque du peuple* in 1849, which naturally failed miserably.

In spite of his noisy attacks against property, his aim was not the suppression but the "universalisation" of property. "We desire," he said, "that every one should have property. We wish for property without usury, because usury is the stumbling-block to the growth and to the universalisation of property" (Journal *Le Peuple*, 2nd September 1849).

Thus it is not the abolition of property, but the abolition of interest, the *gratuitousness of credit* which is to him "the pivot of socialism." "Le problème économique n'est autre que le problème de la centralisation et de la gratuité du crédit d'après le principe de l'échange direct et mutuel" (*Banque d'Échange*). Hence Proudhon has been justly reproached with having strangely narrowed the social problem by reducing it to a mere reform in banking. On this question of the *gratuité du crédit* he was engaged in a long controversy with BASTIAT, published in Bastiat's works. Proudhon, admitting the lawfulness of interest in so far as the historical category, as the Germans say, strives to show that interest should become useless by the creation of his *Banque d'Échange*, which would procure for all, if not property, at least the free use of the implements of labour. And Bastiat scarcely cared to reply to him that his *banque* would do business with nothing but paper-money.

Of the enormous work of this indefatigable labourer, there remains only a stock of scattered ideas here and there, some deep, others incoherent, many contradictory, but in which nevertheless the economist and the socialist can find something valuable. It may be questioned what COLLECTIVISM, and in particular what Karl MARX, owed to Proudhon. Karl Marx detested Proudhon, and took him violently to task in the pamphlet *Misère de la Philosophie*, in reply to Proudhon's book *Les Contradictions Économiques* the second title of which was *Philosophie de la Misère*. He said of him "he is only an insignificant *bourgeois* oscillating continually between capital and labour, between political economy and communism." And in fact it does not seem that there was any connection between the extreme individualism of Proudhon and the collectivism of the German socialist. Proudhon supposes that in our economic organisation value is not proportional, as it ought to be, to labour, and that the social problem consists in making it such, while Karl Marx, on the contrary, maintains that value is necessarily proportional to labour, and that on this is founded capitalist exploitation, while the capitalist prevents equitable distribution.

The complete works of Proudhon have been published; édition Lacroix. The following are the principal:—*De la célébration du Dimanche, considérée sous les rapports de l'hygiène publique, de la morale des relations de famille et de cité*, 1839.—*Qu'est-ce que la propriété?* 1840. This is the famous "Mémoire" that made his reputation. It was followed by two other "mémoires" published 1841 and 1842, and one, *Théorie de la Propriété*, published after his death in 1866, but these are far less interesting.—*Système des contradictions économiques ou Philosophie de la Misère*, 1846, 2 vols. It was the title of this book that appeared to suggest to Bastiat his work *Harmonies Économiques*.—*La Justice dans la Révolution et dans l'Église*, 6 vols. 1858.

[The most recent critical works on the life and doctrine of Proudhon are: Sainte Beuve, *Proudhon, sa vie et sa correspondance*.—Karl Diehl, *Proudhon, seine Lehre und sein Leben*, 1888-1890.—Mülberger, *Studien über Proudhon*, 1891.—Desjardins, *Proudhon*, 2 vols. 1896.—Bourguin, article "Des rapports entre Proudhon et Karl Marx," in the *Revue d'Économie Politique*, March 1893, and also the violent and abusive, though sometimes true, criticism by Karl Marx in 1847 in French, and re-published in 1896, *La Misère de la Philosophie*, written in reply to Proudhon's *Philosophie de la Misère*]. C. G.

PROVABLE DEBT. On bankruptcy the whole of the debtor's estate vests in his trustee for the benefit of his creditors. A creditor is a person who has a debt or demand provable in the bankruptcy. The general rule is that "the privileges of creditors to come in under a bankruptcy, and of bankrupts to be discharged, are co-extensive and commensurate." This rule was laid down by Lord Hardwicke in 1736, and it is still the guiding principle of the Bankruptcy Act 1883. Section 37 of that act defines what debts are provable. It first provides that "demands in the nature of unliquidated damages, arising otherwise than by reason of a contract promise or breach of trust, shall not be provable." The object of this provision is to exclude claims for torts or wrongs, for instance libel or assault. But if judgment has been obtained in an action for a wrong, the claim for this wrong is merged in the judgment debt, which is provable like any other debt. The section then proceeds to exclude debts contracted after notice that the debtor has committed an available act of bankruptcy, and to provide that "except as aforesaid all debts and liabilities, present or future, certain or contingent," to which the debtor is subject at the date of the receiving order, shall be provable. A proof of debt must be verified by affidavit in the prescribed form. M. D. C.

PROVISORS, STATUTE OF. In the reign of Henry III. great indignation was excited by the claim advanced by the popes to issue *provisions* by which they appointed to English livings. The support of the king enabled the popes to make good their claim, and a large proportion of benefices were by this means conferred upon foreigners. This was a serious diminution of the patronage enjoyed both by

bishops and laymen. In the 14th century the papacy ventured to extend its provisions to the filling up of bishoprics as well as benefices. The anger roused by this foreign intervention was increased by the fact that at this time the popes were resident at Avignon and were thus under the influence of France, while England was at war with that country. For some time the English kings connived at the exercise of papal patronage, because it enabled them to defeat the chapter's right of election. But at last public opinion found expression in the Statute of Provisors, which was passed in 1351 and renewed in 1390. By this statute papal provisions were forbidden, and persons receiving them were liable to imprisonment. If the pope infringes on the rights of clerical patrons, the latter are to insist on exercising their power of appointment, and if they fail to do so, the presentation lapses to the king. In the case of a lay patron, if he fails to present within six months, his right lapses to the bishop, and if the bishop fails to appoint within a further month, the king is to make the presentation.

[Stubbs, *Constitutional History*, vol. iii. pp. 310-36.—Makower, *Constitutional History of the English Church*; the statute is printed in full in app. viii.] R. L.

PROXY. The term proxy is used in two senses. First it denotes a person who represents another for voting purposes, and secondly, it denotes the instrument by which the authority to represent is conferred. An instrument of proxy may be either general or special. A general proxy authorises the person who holds it to exercise his discretion throughout in the matter to which it relates, whereas a special proxy only authorises him to vote for or against some specific resolution or proposal. Under the Bankruptcy Act of 1869 the system of general proxies gave rise to gross abuses, which were investigated by a select committee of the House of Commons in 1880. The committee recommended that no proxy should be used unless it expressed in writing the particular purpose for which it was given. The Bankruptcy Acts of 1883 and 1890 do not go so far as this, but they put considerable restrictions on the use of general proxies in bankruptcy matters.

[See Bankruptcy Act 1883, sched. i., and Bankruptcy Act 1890, § 22.] M. D. C.

PRUD' HOMMES (Fr.). Councils for conciliation and arbitration in disputes between masters and workmen, instituted by a law of 1806. These bodies are authorised by a decree of the ministers of commerce and justices in industrial centres, on a demand by the municipal council approved by the chamber of commerce. They are permanent and elective, and must consist of at least six members. When the local industry comprises only a small number of trades, each branch elects two members, one a master the other a workman. When the number of branches of industry is large, they are grouped into classes for the election of members. The members serve for six years; one half retiring every three years, but they are re-eligible. The president and vice-president are elected annually. If the president is a master, the vice-president must be a workman, and *vice versa*. The masters act gratuitously. The workmen may receive attendance fees, paid from the municipal funds, as are also all the expenses of the councils. Each council has a special bureau of two members, and a general bureau of all the members. The special bureau is charged to endeavour to conciliate the parties; if not successful they are sent before the general bureau. The judgment given is final for all disputes in which the question at issue does not exceed a sum of 200 f. (say £8). Above that sum there is a right of appeal to the tribunal of commerce. The qualification of *prud' hommes* is the age of twenty-five and five years' exercise of the trade. Jurisdiction only extends to trades which elect members, and which are named in the decree instituting the council. The councils are competent to judge contestations between members of workmen's associations, between masters relative to trade marks, models, and designs, and in matters relating to apprenticeship. Should one of the parties not appear, judgment is given by default, and can only be set aside by appeal to the tribunal of commerce. The councils have power to condemn disorderly workmen and insubordinate apprentices to imprisonment not exceeding three days. A law of a more general character was passed in December 1892 to meet the case of disputes between masters and collective bodies of workmen, and strikes, which were not provided for by the law on Prud' hommes (see Conciliation, Boards of; Conseils de Prud'hommes). T. L.

PTOLEMY OF LUCCA (1236-1327), a Dominican scholar, in later life bishop of Torcelli, was very possibly the real author of the greater part of the treatise *De Regimine Principum*, commonly attributed to St. Thomas Aquinas.

The portions of the work especially interesting to the economist are l. ii. c. 3, on the state's food supply; cc. 5-7, on natural and artificial riches; c. 13, on the currency; c. 14, on weights and measures; c. 15, on the relief of the poor from the public treasury; and l. iv. cc. 4-6, on the Platonic communism. Concerning the currency, it is remarked that "the prince or king ought to be moderate in changing or diminishing the weight or the metal, since this turns to the detriment of the people, inasmuch as money is a measure of things; so that to change the coinage is just the same as to change a weight." [As to the place of this teaching in the history of the doctrine of currency, see W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, ii. (1883) 163, 187. Bibliographical

indications and the most recent discussion of the authorship of the treatise will be found in the dissertation of C. A. Bosone (*Der Aufsatz*) on the Essay *De Regimine Principum*, Bonn, 1894, which maintains that the whole of it is substantially the work of AQUINAS (*q.v.*). It undoubtedly represents his teaching if it does not come from his hand.] W. J. A.

PUBLIC ADMINISTRATION. See ADMINISTRATION.

PUBLIC ASSISTANCE. The phrase "public assistance," is a literal translation of the French *Assistance Publique*, which roughly corresponds to our POOR LAW (*q.v.*) But certain differences both of principle and detail may be noticed in the relief of the poor in the two countries. In France the right to relief is not recognised, nor is the distinction between POVERTY (*q.v.*) and destitution. As a logical consequence there is no poor-rate, in the sense in which in this country the overseers of the poor are compelled by law to raise as much for the relief of the poor as that relief demands. The relief given in France is therefore limited to the sums available for the purpose, which are raised in several ways, by private subscriptions, by bequest, by a tax on amusements, viz. the tickets of places of public entertainment, and endowments. Thus in France the organ of poor relief corresponds more to a charity organisation society administered by a local authority than to our poor-law system. In each commune theoretically, and practically in the great majority of communes, a *Bureau de Bienfaisance* is established, presided over by the mayor and a council elected locally. This body distributes the funds at its disposal, but is limited to those funds. Hence we find great inequalities between communes as to the sum available annually for the relief of the poor, and a tendency to spread the funds over as wide an area as possible, with the result that the relief given is often to our minds wholly inadequate. The relief of foundlings (*Enfants Trouvés*), deserted children, vagrants, and the sick, is organised in great detail, but a specific or historical treatment of the subject would take us too far. L. R. P.

PUBLIC LOANS. See DEBTS, PUBLIC.

PUBLIC POLICY. English courts have always refused to enforce contracts which they regard as contrary to public policy; but the test of what is or is not opposed to public policy has naturally varied as the conditions of society have changed. As our law is uncodified, and as the judges are technically bound by the decisions of their predecessors, we find them continually engaged in the task of putting new wine into old bottles. The modern tendency is to restrict the doctrine of public policy within narrow limits, and to confine its operation to agreements which are tainted with criminality or are *contra bonos mores*. As Justice Cave said in a recent case, this is "a branch of the law which certainly should not be extended, as judges are more to be trusted as interpreters of the law than as expounders of what is called public policy." Commerce is left to take care of itself, and contracts are enforced without regard to the opinion of lawyers as to what may be for the advantage of trade in general. The old rules as to contracts in restraint of trade have been watered down. Trades unions, which were regarded as illegal combinations in restraint of trade, have received legislative recognition, and apart from fraud full play is allowed to the competition either of individuals or of combinations to keep up prices.

[See the whole question discussed in a recent House of Lords case, *Mogul Steamship Co.* v. *M'Gregor* (1892) A. C. 25].

See PERPETUITIES; RESTRAINT OF TRADE; THELLUSSON, P.; TRADES UNIONS. M. D. C.

PUBLICANI. The name given to the capitalists who farmed the revenues of the Roman state. Down to the fall of the republic Rome hardly possessed the rudiments of a permanent civil service, and was therefore without proper machinery for collecting the varied revenues of her extensive possessions. This work was done by wealthy individuals who combined in companies or syndicates, and farmed mines, salt-works, fisheries, etc., belonging to the state, as well as certain indirect revenues such as the *portoria* or harbour dues. When transmarine provinces were acquired, the same method was employed to collect the land-tax imposed upon them. The system reached its greatest and most pernicious extension when C. Gracchus (B.C. 121), applied it to the revenues of "Asia," by far the richest of the Roman provinces. From that time till the establishment of the empire the *Publicani* filled a great space in the history of Rome, partly as the means whereby the provinces were impoverished and the capital flooded with ill-gotten wealth, and partly as a force in the internal politics of the ruling community, generally hostile to the senate, which made feeble attempts to check their oppression, and therefore inclining to an alliance with the popular party, but never really attached to any principle, and aiming solely at the accumulation of money. With the establishment of the empire and the reform of the administration, the scope for the activity of the *Publicani* was reduced. The provincial land-tax was collected by public officials, and, with regard to those branches of the revenue which continued to be farmed, a closer and more severe supervision was exercised by the government. The publicans so often referred to in the New Testament were not the Roman capitalists but their underlings, usually natives of the subject provinces, and therefore even more hateful to

their countrymen (as to the *Societates Publicanorum*, see PARTNERSHIP, considered historically).

[Smith's *Dictionary of Antiquities*; Mommsen and Marquhardt, *Handbuch der Römischen Alterthumswissenschaft*, and the authorities therein cited.] F. C. M.

PUFENDORF, SAMUEL (1632-1694), studied law in Leipzig and Jena, and lectured at Heidelberg from 1661 to 1670, when he left Germany for a professorship at the Swedish university of Lund. In 1686 he was appointed privy councillor and royal historiographer of Sweden; two years later he was called to Berlin by the Great Elector (Frederick William, 1620-1688), who bestowed on him similar titles and dignities.

His *De Statu imperii germanici liber unus*, Geneva (real imprint the Hague), 1667, republished in German in 1870 (in the *Historisch-Politische Bibliothek*), may have led to his leaving Germany, for, though issued under the fictitious name of Severinus de Mozambano, it was known that Pufendorf was the author of this critical but faithful picture of the state of helplessness of the German empire, and of the misgovernment prevalent in most German states since the Thirty Years' War.

The publication of his former work, the *Elementa jurisprudentiæ universalis* (1660), had already attracted public attention and led to his appointment at the university of Heidelberg; it is the first attempt to found the philosophy of law on a purely rational basis, and may be considered as the origin of his celebrated treatise *De Jure naturæ et gentium libri VIII.*, published at Lund, 1672 (another edition at Amsterdam, 1704, with the author's emendations, since often republished, and translated into most European languages).

In state questions, Pufendorf upholds the principles maintained by the founders of the Prussian monarchy, commencing with his protector Frederick William, the Great Elector. The individual will must be subject to the will of the collective or individual possessor of supreme power (*summum imperium*), who is the interpreter of the nation considered as a moral body, and is to decide what is lawful and what is not; in this respect, Pufendorf follows the teaching of HOBBES, limiting, however, the authority of the supreme power to what the citizens have acquired under its protection. Practically the state, thus possessed of the *dominium eminens* (see EMINENT DOMAIN), regulates the disposal of private fortunes, —sumptuary laws, successoral laws, etc.—and the levying of taxation; its duty is to foster the economic development of its subjects, especially in agriculture, manufactures, trade, and navigation. Pufendorf is not a thorough-going opponent of MONOPOLIES (*q.v.*), and would allow the privileges of corporations and crafts to continue. The only limitations to the fiscal prerogative of government are that it must never act as a dissolute or weak head of the family; first of all, export duties must never impede the prosperity of trade, for "a port which traders desert is a sterile port." Taxation should always be proportioned to the means of the taxpayer.

On the purely economic domain, Pufendorf is not carried away by the passion for the indefinite expansion of population, so general among German cameralists (see CAMERALISTIC SCIENCE) of the last two centuries. He considers that the question whether property should be individual or collective depends on the stage of progress reached by the nation, for history shows that collective property is the most natural and advantageous system for barbarians. Equal division among the children of the same father is not naturally necessary; account ought to be taken of the existence of the family taken as a whole; according to each case, the practice of MAJORAT or MINORAT (*q.v.*) may be recommended.

Pufendorf's theory of prices has been highly praised. It comprises the vulgar price, *pretium vulgare*, founded on the fitness of things to satisfy human wants, and the *pretium eminens* or price expressed in terms of money; Pufendorf thus announces the distinction between VALUE IN USE (*q.v.*) and value in exchange (see EXCHANGE, VALUE IN), and classifies economic goods as—things, *res*, services, *operæ*, and obligations, *actiones*. Scarcity is the most important factor of high prices, but value in exchange is often unconnected with value in use. As to expenses of production, those only which are usual, influence prices, which also experience the influence of a scarcity or abundance of the currency. He, however, rather exaggerates the action of law when he states that the use of precious metals as money, is not so much derived from their natural adequacy, as from a convention among men. The value of land, considered as naturally stable, shows if a general rise of prices is to be ascribed to a scarcity of money or to a scarcity of goods. His theory of usury follows a *via media* between the absolute rejection and the absolute liberty of interest; according to Pufendorf, it is a mistake to believe that the taking of interest is forbidden by the Bible. Moses actually sanctioned it by allowing Jews to take interest from foreigners.

[Roscher, *Geschichte der National Oekonomik in Deutschland*, pp. 304-319.—Treitschke, "Samuel Pufendorf" in *Preussische Jahrbücher*, vol. 35 (pp. 614-55), and vol. 36 (pp. 61-109), Berlin, 1875.—P. Meyer, *Samuel Pufendorf, ein Beitrag zur Geschichte seines Lebens*, Grimma, 1894 (see also INTERNATIONAL LAW).] E. Ca.

PULLUS. See PIPE ROLLS.

PURCHASE AND SALE. See VENDOR AND PURCHASER.

PURCHASING POWER OF MONEY. See MONEY.

PURCHASING POWER OF WAGES. See WAGES, PURCHASING POWER OF.

PURLIEU. See FORESTS, MEDIÆVAL.

PURPRESTURE. See FORESTS, MEDIÆVAL.

PURVES, G. [*pseud.*] See GRAY, SIMON.

PURVEYANCE. One of the oldest prerogatives of the crown, not only in England but in most European countries, was the right to demand supplies and services at the lowest prices, which were usually fixed by the royal

officers. Payments were not made, as a rule, in money, but in TALLIES (*q.v.*), which entitled the recipients to deduct the specified sums from their future taxes. Not infrequently payment was evaded altogether. Little is known of the early history of these exactions, but in the 13th and 14th centuries they gave rise to such glaring abuses that the petitions and laws on the subject are extremely numerous. From *Magna Carta* (arts. 28-31) we learn that royal constables and bailiffs were in the habit of exacting purveyance, and this practice is forbidden. In the *Articuli super cartas* of 1300 it is provided that goods are only to be taken for the king and his household, and then only at a price agreed with the owner; undue exactions are to be punished with dismissal and imprisonment. But legislation seemed impotent to check the extortions of royal officials; under Edward II. the complaints are as loud as ever, and the ordinances of 1311 went so far as to forbid purveyance altogether. But the ordinances were formally repealed by the parliament of 1322, in which the law of 1300 was re-enacted. Still the abuses continue to be the subject of innumerable petitions under Edward III., in whose reign no less than ten statutes were passed on the subject. The most important of these is the statute of 1362, which provided that purveyance is to be limited henceforth to the personal wants of the king and queen, whereas it had frequently been exacted for other members of the royal family and their servants. At the same time the hated name of purveyors is changed for that of buyers. This law seems to have been far more efficacious than any of its predecessors, and the subject retires into the background until the 17th century. Under James I. we have a petition of the Commons in 1604, which shows that many of the old abuses were still rife. It is stated that the royal officials, when 200 carts are required, will order 800 or 900, in order that the owners may bribe them to withdraw the demand. Goods were valued by strangers called in by the purveyors, and owners were often unable to obtain more than a fraction of the value. Suitors who complained of illegal usage found it impossible to obtain justice against the agents of the crown. The result of these complaints was a proposal in the Lords that the king should surrender the right of purveyance for an annual grant of £50,000, but nothing came of it. In 1610 Cecil nearly succeeded in carrying through the "Great Contract," by which purveyance and the feudal rights of the crown were to be abolished in return for a fixed revenue, but subsequent disagreement between the crown and the Commons led to the abandonment of the scheme. Thus purveyance lasted till the great rebellion, and perished with the defeat of the king. In 1660 it was formally abolished (see PRISAGE).

[Stubbs, *Constitutional History*, vol. ii. pp. 535-538.—Hallam, *Constitutional History*.—Gardiner, *History of England*, vol. i. pp. 170-174.] R. L.

PUT AND CALL. Speculation in stock exchange securities, bullion, and produce, is, to a large extent, carried on by means of OPTIONS (see also CALL). Such options are either single options ("call" or "put") or double options ("put and call"). A speculator is said to "give for the call" if he agrees to pay a specified percentage, and in return obtains the privilege to decide at a specified point of time whether he will purchase a specified amount of stock, bullion, or produce at a specified price; he is said to "give for the put" if in the same manner he secures the option of selling such stock, bullion, or produce. Thus for instance a speculator who gives ¼ per cent for the call of £10,000 consols at 112 at the end of December, can at the end of December, at his own choice, either call for £10,000 consols to be delivered to him at 112¼ or pay £25 without calling for the consols. A speculator is, on the other hand, said to give for the "put and call" if, at the specified time, he is to become entitled at his option either to buy or to sell at the specified price.

The amount of the percentage payable for the privilege of exercising an option depends on the length of time, the nature of the security or article, and the general situation and prospects. Options in securities or articles, in which there is much speculation, have a regular market value, and—on account of reasons which it would take too long to explain—the market value of a double option is always equal to the double amount of the market value of the corresponding single option. Thus in the above-quoted example the "put and call" of the £10,000 consols at 112 for end of December would cost ½ per cent. The speculator who sells the option, who in stock exchange language is said to "take" for the "call," or the "put," or the "put and call," reckons on the steadiness of prices, whilst the purchaser of the option speculates on fluctuations. If he believes in a change in one direction only, he will give for "a single option," but if he anticipates fluctuations without being able to form an opinion as to their direction, he will "give for" a "put and call." There are many circumstances, imaginable, under which a change in the range of prices may be expected within a given time, but subject to great uncertainty as to the direction of the change. Thus, for instance, a political decision of great importance may be expected by a certain date, and it may be thought that if the decision is taken one way it will lead to a heavy fall of prices, whilst an important rise would ensue if it were taken the other way. Under such circumstances the possibility of being able at one's option either to call or put at the present price, at the time when it is anticipated that

the uncertainty will be over, may of course be worth a great deal more than the amount of the option money. Thus in the example given above, a speculator who is able at the time of the option, becoming exerciseable as before, to sell the consols at 114, will call them at 112, and, after paying ½ per cent option money, and ⅛ per cent brokerage, realise a net profit of 1⅜ per cent, and he will obtain the same profit, if consols, instead of rising to 114, recede to 110.

In actual practice option transactions are generally more complex, being used to assist or serve as insurances for other operations, or being made the basis of a series of successive speculations; but this fact in no way affects the general principles of options, which may be stated as follows: the speculator who sells the option has an unlimited risk of loss, and cannot gain more than the option money, whilst the purchaser of the option cannot lose more than the option money and the brokerage, and has an unlimited chance of profit. This limitation of risk on one side creates the impression that option business is a safer and therefore sounder mode of speculation than other speculative business, but this view is based on an obvious fallacy. As already mentioned, the purchaser's comparative safety is counterbalanced by the seller's corresponding danger, but even from the purchaser's point of view the dealings in options are more in the nature of gambling transactions than ordinary speculative purchases or sales. Whilst in the case of an ordinary speculation the result may be favourable in the end, although at first there is an apparent loss; the result of the option is final at the same date as the time for declaring the purchaser's choice has come. If the option cannot be exercised the amount at stake is irretrievably lost. The fact that the loss is limited induces the purchaser to speculate in a much larger amount than he could afford to do if there was an unlimited risk, and therefore materially increases the total amount of speculative purchases and sales. Moreover, imprudence in option dealings is increased by the circumstance that, whilst speculators generally are compelled to pay the difference between the original price and the market price, or between the last market price and the present market price, as the case may be, at each successive account day, if such difference is against them, and must therefore have liquid means at their command, option dealers are not required to pay any differences until the time for declaring the option has arrived. These facts are sufficient to show that recklessness in stock exchange transactions is much increased by the system of options.

R. S.

See OPTIONS; POLEGRAPHY.

[For an interesting description of the stock exchange operations known as option dealing, see L. R. Higgins, *Put and Call*, Effingham Wilson, 1896.]

PYX, from πυξίς, a box, is properly the pyx-chest at the mint into which one coin from every 15 lbs. of newly coined gold, or 60 lbs. of silver, is put to await the *Trial of the Pyx* (see PYX, TRIAL OF). In addition to its ecclesiastical use, the word is also applied to the box in the chapel of the pyx, Westminster Abbey, in which the standard plates of gold and silver used at the trial are kept by the warden of the standards (see STANDARDS, WARDEN OF).

R. H.

PYX, TRIAL OF, the now annual testing of coins from the pyx-chest at the mint. These and pieces from the trial plates (see PYX) are assayed by cupellation by a jury of the Goldsmith's company. The permissible variation or "remedy" is now 2 parts in 1000 of gold, of silver 4; but the difference is usually much less. By weight the "remedies" are respectively 1·6 and 4·17 in 1000. The 27 *combustiones* in the pipe roll of 11 Hen. II. show a rough mode of trial adapted to an age in which mints were numerous, but the *blancum* [*argentum*] of Domesday denotes its equivalent much earlier. Both tested coin which had been in circulation. The *pixides assaii* appear in 1281; and in a British Museum MS. (Cott. Cleop. A. xvi., f. 50) is a detailed account of a trial in 1349, when gold nobles were tested by a jury against Florentine florins and found deficient *ultra debitum remedium*. Trial plates date from 1477.

[Brit. Mus. MS. Harl. 698.—Madox, *Hist. of Exchcq.* i. 291.—Report to Compt. Gen. of Exchequer on *Trial of the Pyx*, 1866.—Reports of Dep. Master of Mint.—Standards Act, 1866.—Scargill-Bird, *Guide to Public Records*, p. 217.]

R. H.

QUADRUPLE. An abbreviated expression for "quadruple pistole" was not uncommonly used, up to the earlier years of the present century, to denote the Spanish gold coin of 4 pistoles or 8 escudos, commonly, but less correctly, known as the DOUBLOON (*q.v.*).

C. A. H.

QUALIFICATION. The amount of stock or shares required to be held by the directors of a joint-stock company. In some companies no such qualification is required, but in respect of most companies it is usual to fix by the articles of association the amount of stock or shares necessary to be held by each director, and also to lay down certain conditions, the occurrence of which will cause a director's office to be vacated—generally these are bankruptcy or insolvency, or the holding of any other office of profit under the company.

In political affairs, qualifications of different kinds or degrees are required both for the holding of various offices and for the exercise of some of the duties of citizenship. These are the qualifications required for acting as

justices or as jurymen; and those for voting at elections of different kinds. Among these latter, before the qualification by rating becomes effective, there is a qualification by time, or length of residence, necessary. R. W. B.

QUALIFIED ACCEPTANCE. The acceptance of a bill of exchange is qualified when in terms it varies the effect of the bill as drawn. For instance, an acceptance is qualified when it is conditional, or when it is an acceptance to pay at a particular place and there only, or when it is the acceptance of some only of the drawees. The holder of a bill is not obliged to take a qualified acceptance, and if he takes it, he does so at his own risk, unless the previous parties assent thereto.

[Bills of Exchange Act, 1882, §§ 25 and 44.]

M. D. C.

QUANTITY THEORY OF MONEY. According to this theory, prices are determined by the relation between the demand for, and the supply of, money. The demand consists in the offering of goods for money; the more goods are offered, the greater the demand. The supply consists of the money-pieces, whatever their material or form, available for the purchase of goods. The goods to be exchanged through the instrumentality of money remaining the same, an increase in the supply of money will, according to this theory, raise prices; conversely, a decrease in the supply of money will lower prices.

It will be seen that the quantity-theory is merely an application to the special case of money, of the general principle that value is determined by demand and supply. Prices, being merely the value of goods in exchange for money, must be deemed to be governed by the general law of value, unless some reason for an exception in this case be shown, which has never been done. However much men have cavilled at the quantity-theory, no one has ever yet seriously undertaken to show what determines the value of money—that is, prices—if supply and demand do not.

The causes of the difficulty which many persons feel in accepting the quantity-theory of money are: first, the complexity and elusiveness of the elements involved; and, secondly, the fact that those who deal with this subject, either as writers or as readers, do not sufficiently attend to the proviso which should be attached to every statement of this doctrine, namely, "all other things being equal." The first of these causes of the difficulty experienced in fully appreciating the quantity-theory cannot be removed; the second may be, by greater emphasis laid upon the proviso, and by fuller illustration of its scope. The habits of a people in regard to carrying and using money, the facilities for transportation, the introduction or extension of banking agencies—all these are subject to change; and no statistics of "per capita circulation" can show whether the real money supply has been increased or diminished, unless such changes are taken into account. Moreover, the mere increase of the money-supply may itself become the cause of a further demand for money, which will enter to prevent prices from rising in proportion to such increase of supply. Thus, while it is estimated that the money-supply of Europe was increased 500 per cent during the first few generations after the discovery of America, prices are not generally thought to have increased more than about 200 per cent. The commerce of the world had been starved through the long silver famine of the middle ages; and the new supplies from Mexico and Peru were eagerly taken up by the depleted system. Speculation and enterprise arose in every land; new industries were brought into being, and traditional industries were rapidly increased; commerce extended its operations to new quarters of the globe. A similar effect, and possibly in a higher degree, was produced by the Californian and Australian gold discoveries. The increased commercial and industrial activity and enterprise, due to the flood of new gold, themselves became a part of the demand for money, and prevented prices from rising proportionally to the increase of supply.

It is not necessary to multiply illustrations of the importance of the proviso, "all other things equal." Nowhere is that proviso of greater importance than in respect to the theory we are considering. It does not, however, belong to the advocate of that theory to prove its validity, inasmuch as it constitutes merely a single case, under a principle which is in all other instances admitted to govern value. The burden of proof rests upon those who would dispute this theory.

[Prof. Francis A. Walker, *Money in its relations to Trade and Industry.—Political Economy.—Money.*—Nicholson, *Pol. Econ.*, vol. ii., 1897.—Zuckerkandl, *Theorie des Preises*, 1889.]

F. A. W.

QUARANTINE strictly means merely a period of forty days. It is practically restricted to the period—whether forty days or any other length—appointed by the law of most nations for the detention of a vessel arriving from a port where infectious disease is prevalent before persons on the vessel in question are admitted to intercourse with those on the land.

This species of detention seems first to have been adopted by the Venetians about 1484, probably on the alarm of some recurrence of the plague. It was little understood or used till 1719, when a vessel named the *Grand Saint Antoine* introduced into Marseilles a plague which carried off half the city. Up to 1800 there were very few regulations on the subject in England: in the earlier years of this century they became frequent, and a lazaretto was erected

at Chetney Hill, Kent. The earlier laws were directed mainly against vessels coming from the Levant, which was looked upon as the nursery of the plague. The act of 1825 (6 Geo. IV. c. 78) was the first consolidating act on the subject, and most of it is still in force; it is directed chiefly against plague and yellow fever. The privy council was till recently the controlling authority, but the local government board now is charged with the initiative in cases where quarantine is needful. Most of the British colonies have more or less stringent quarantine laws, and in many of them the law is enforced with absurd rigour and timidity. Most foreign countries also, especially those surrounding the Mediterranean, at times enforce quarantine very strictly, not only on arrivals by sea but also along the land frontier. The term "quarantines terrestres" was much in evidence at the International Sanitary Conference at Dresden in 1893.

Quarantine may be discussed: (1) in relation to international law; (2) in relation to the public health; (3) in regard to its effect on commerce and shipping. It is properly only in the last relation that it has any bearing on economics.

The evil effects of quarantine upon commerce arise: (1) from the delays imposed upon shipping; (2) from the risk that a cargo may be destroyed as infected. Both of these points may raise serious questions as to the liability of the owners of vessels. The great divergence of quarantine regulations in different ports is a fruitful source of commercial irritation. In a recent "Milroy" lecture before the college of physicians, Dr. Collingridge laid it down that in a commercial country like England quarantine had proved not only useless but actually impossible.

The application of the term "quarantine" to the regulation of the landing and sale of cattle coming from abroad requires passing notice. The administration of the rules for this purpose is under the customs authorities in the United Kingdom.

[Sir Sherston Baker's *Quarantine Laws.—Report of the General Board of Health on Quarantine*, 1849.—*Report of the International Conference on Quarantine*, 1850.—*Report of the West Indian Conference on Quarantine*, 1888.—M'Culloch's *Commercial Dictionary.—Proceedings of the International Sanitary Conference* at Dresden, 1893. There is a collection of laws of the United States, now rather out of date.] C. A. H.

QUARTER (measure); see MEASURES AND WEIGHTS.

QUARTILLO OR CUARTILLO. Mexican silver coin of the value of one quarter of a REAL de plata, or one thirty-second of a PESO. Weight ·8458 grammes, = 13·05 grains, fineness 902·7. This coin belonged to the currency system in force up to the year 1861, the smallest silver coin of the system then introduced being a five-centavo piece of nearly double the weight of the quartillo, 1·353 grammes, = 20·88 grains.

Quartillo is also the name of Spanish measure, of liquid and dry capacity. F. E. A.

QUASI-CONTRACT. A quasi-contract may be defined as a transaction or state of facts to which the law, independently of the volition of the parties, annexes an obligation similar to that which would arise from a contract. The term, though a familiar one in Roman law, has only been recently adopted into English law. Yet a quasi-contract is clearly distinct from an implied contract, the term which was formerly used to cover both classes of obligations. When a man goes into a shop and orders goods, and nothing is said about the price, there is an implied contract to pay for them, for this is the intention of both parties. But the obligation of a principal in the absence of any agreement to indemnify his agent for any thing done pursuant to his authority, is an instance of quasi-contract. The law annexes the obligation to the relationship between the parties.

[Anson, *On Contracts*, ed. vi. p. 357.] M. D. C.

QUASI-RENT. See RENT.

QUATTIE—a silver 1½d. piece—is one of the most familiar terms in the daily life of the Jamaica negro. The little silver 1½d., struck in 1834, was first introduced into Jamaica in 1835, where it rapidly found a congenial home. It became popularly known as the "quarter," corrupted into "quattie," of the prevalent sixpence or bit. The last consignment of these pieces was sent from the mint to Jamaica in 1862, and a large number still circulate. C. A. H.

QUAYAGE, money paid by the owners of ships for the use of a quay for unloading or mooring. A. E. S.

QUEEN ANNE'S BOUNTY. In the year 1704 Queen Anne made a birthday gift to the church of the first fruits and tenths of ecclesiastical benefices. These were respectively the first year's income of the newly-appointed incumbent and a tenth part of the annual profit. They had been paid into the royal exchequer since 1534, when, by 26 Hen. VIII. c. 3, they were "united and knit to the king's imperial crown for ever." Previously they had been a kind of papal perquisite. The pope's claim to them seems to have arisen in the 13th century. It was often resisted, but never with much success, owing to the papal leanings of large sections of the clergy, and the policy of the popes in conciliating the crown by occasional grants of a portion of the proceeds to the king. Little came of the action which parliament was sometimes induced to take. For instance, at the parliament of Carlisle in 1307 the laity petitioned for legislation against the reservation of first fruits; but Edward I. entered into negotiations with Clement V., and before any-

thing was settled the great king died. Other attempts had similar futile endings; and when Henry VIII. broke with Rome he found the payments flowing in full tide into the papal coffers. So good an opportunity of replenishing his own was not to be lost. Hence the statute cited above, and also a new *valor beneficiorum* which has remained in force to the present day for the purposes of this taxation, though the money value of benefices is much greater than it was in the valuation of 1535, the date of the basis of the calculation.

The charter by which Queen Anne made her gift was confirmed by act of parliament (2 & 3 Anne, c. 11). The revenues derived from first fruits and tenths were vested in trustees, called the governors of Queen Anne's Bounty. The archbishops, bishops, and deans, together with a number of highly placed laymen, are the governors, whose duty it is to apply the funds at their disposal to the augmentation of small benefices. They have power to accept property from benefactors and also to sell any lands they may have acquired, the purchase money being treated as part of their general funds. A new and important function was conferred on them by an act passed in 1776, commonly called the Gilbert Act. By it and subsequent legislation in extension of its provisions, the governors of Queen Anne's Bounty are empowered to lend money at 4 per cent interest to incumbents, on the security of a mortgage of their benefices, for the repair and improvement of the glebe buildings, the erection of houses of residence, and other purposes. The consent of the bishop and the patron must be given before such a loan can be granted, and there are elaborate arrangements for the proper performance of the work, insurance, repayment, etc. To meet cases of serious diminution in the value of a benefice, an act was passed in 1896, giving power to the governors, with the consent of the patron, to extend the time for the repayment of loans and decrease the annual payments in proportion. In fact a great body of law has sprung up in regulation of the proceedings of the bounty office, and a still greater body of rules has been created by the governors themselves, while by a curious mixture of abolition and retention the now meaningless values of Henry VIII.'s time still are continued. They have become a most important corporation possessed of interests of various kinds in vast masses of ecclesiastical property, and they hold a capital sum of 4½ millions. Their original function of providing for the augmentation of small livings has not been neglected. In the year 1895 a sum of nearly £36,000 was expended in grants for increasing the income of 138 benefices.

[Cripps, *The Laws of the Church and Clergy*, bk. ii. ch. i. § 6 and ch. iv., London, 1886.—Phillimore, *Ecclesiastical Law*, pt. ix. ch. ii., London, 1895.—Stubbs, *Constitutional History*, ch. xiv., Oxford, 1875.—Stanhope, *Queen Anne*, ch. iv., London, 1870.—*Year Book of the Church of England*, London, 1897.] T. J. L.

QUEEN GOLD. In mediæval times, whenever a man fined to the king, he was required to make an additional oblation to the queen. This was called *Aurum Reginæ* or queen gold, and it was claimed for the queen by a special officer whose functions are minutely defined in several ancient records. It was, however, from the first a matter of doubt whether the amount of the queen gold bore a definite relation to the original fine, or varied according to circumstances. The author of the *Dialogus* asserts that, although it was generally a tenth of the original fine, the matter was under litigation at the time when he was writing. This point may now be definitely decided, as the *Red Book of the Exchequer* has preserved a passage, in which an exchequer baron, writing about the year 1230, assures us that the doubt which existed in the time of Henry II. had since been removed, and that queen gold should properly be reckoned at a tenth part of the original fine. The correctness of this statement is amply proved by a reference to the pipe rolls.

[*Dialogus de Scaccario*, ii. 26.—W. Prynne, *Aurum Reginæ*, London, 1668.—*Red Book of the Exchequer*, p. 760 (Rolls).] A. E. S.

QUESNAY, FRANÇOIS (1694-1774), born at Méré (Seine-et-Oise), where a commemorative monument was recently inaugurated, died at Versailles, was the head of the school styled by DU PONT de Nemours, in 1767, the PHYSIOCRATS. His father, a distinguished lawyer, but little favoured by fortune, brought him up in the country; and at the age of ten or eleven he could not even read.

His brilliant ability was strengthened by his powerful will, and he taught himself so successfully that at the age of twenty-four he became a master-surgeon. In 1737, La Peyronée, a celebrated surgeon of the day, appointed him the permanent secretary of the academy of surgery which he had just founded. In 1744 Quesnay graduated as a doctor of medicine, and became first an associate of the faculty of Paris, then physician in ordinary, and finally consulting physician to Louis XV. It is not, however, to these titles that the celebrity of his name is due. His fame as an economist equalled that attained some years later by Adam SMITH. These two great thinkers were far from being jealous of each other; it was only the death of Quesnay which prevented Adam Smith from dedicating to him his *Wealth of Nations*.

The system of the PHYSIOCRATS (*q.v.*) is dealt with separately, here it must suffice to say that Quesnay's ideas are based on the predominance of agriculture over all other industries. Agriculture alone of all industries

produces more than the total sums advanced—the surplus is the famous PRODUIT NET, at the expense of which all the other industries, called barren, but not useless, live. In consequence, it is this *produit net* which finally supports all the weight of taxation, which, whatever its form or whatever is desired, always reverts more or less directly on agriculture.

Hence taxation has been divided into two classes—*direct*, that is to say, taxes levied by name and without intermediary means on agriculture, and *indirect*, in which other industries advance the amount in the first place, and are reimbursed by agriculture. As a result Quesnay divided mankind into three classes, the productive class, the class of proprietors, and the unproductive class. Without following this classification further, it suffices to mention that Quesnay struck the first blow at the MERCANTILE SYSTEM; he supported absolute freedom in trade, industry, and labour, but in politics he held that power should be in the hands of one man alone. He looked to public opinion, in the controlling power of which Quesnay, as is well known, has great confidence, provided the people were enlightened—to moderate the aberrations of despotism; and declared that in the contrary case it was the representative system alone that could struggle against the consequences of public ignorance. His saying, "If the halberd leads the kingdom, it is opinion which leads the halberd," is well known. In seeking to disseminate his views he commenced by conversation, and then, at the age of sixty, he took up his pen and began, after mature and serious consideration, to give a summary of them in the *Encyclopédie*, in which he wrote, 1756 and 1757, the articles "Fermiers" and "Grains." He carried this out more completely by publishing, in 1758, his *Tableau Économique*, a most remarkable analysis of the economic condition of his country.[1]

The king took great pleasure in the conversation of his *Sage*, as he delighted to call Quesnay. He lodged him at Versailles, where his apartments were on the *entresol*, whence the celebrated *Réunions de l'entresol* received their name. His rooms were the meeting-place of many of the able men of that time—DIDEROT, d'Alembert, Duclos, HELVETIUS, MARMONTEL, Buffon, besides the members of the *secte des économistes*, the elder MIRABEAU, BAUDEAU, ROUBAUD, MERCIER DE LA RIVIÈRE, ABEILLE, TURGOT, Trudaine, De Fourqueux, MALESHERBES, LAVOISIER, de Jaucourt, CONDORCET, RAYNAL, DU PONT (de Nemours), LETROSNE, and others.

Adam SMITH, when staying in Paris (1765-66), had frequent discussions with them.

[1] An *édition de luxe* was printed at Versailles under the eye of Louis XV. himself, who, it is said, corrected the proofs. A fac-simile reprint, from the original MS. with a preface by Mr. H. Higgs, has been published by the British Economic Association (London, Macmillans, 1895).

Though the first edition of the *Tableau Économique* has so completely disappeared that the *Bibliothèque nationale* does not possess a single copy—the greater and, it seems, the most important part was reproduced by Du Pont de Nemours in 1758 in his *Physiocratie ou constitution naturelle du gouvernement le plus avantageux au genre humain* (2 vols. 8vo);—*Le droit naturel, l'Analyse du Tableau économique les maximes générales du gouvernement économique d'un royaume, les deux problèmes économiques*, and *Les dialogues sur le commerce et sur les travaux des artisans*. What is described here, and the two articles in the *Encyclopédie* quoted above, are reproduced in full in the publication of Guillaumin (*Physiocrates*, 1st volume).

The elder Mirabeau, in his work *L'ami des hommes* (1756-60), has in the sixth and last part, published 1760 (the date is of importance), included a thesis under the title of *Tableau œconomique avec ses explications*.

Quesnay was the first in France to raise political economy to the dignity of a moral science. To discuss with his disciples the means of improving the lot of the people was his one pleasure. Though in high favour at court, he was never a courtier, and only employed the favour which he stood in there for the advantage of others. His character and brilliant intellect were held in high esteem; and throughout literary and philosophic Europe, Quesnay and his ideas were a leading subject of discussion for some half century.

It must, however, be mentioned that he had some opponents, among others FORBONNAIS, who was not without ability.

The "éloge" of Quesnay was spoken in 1774 by Grandjean de Fouchy at Paris, and in 1775 by the Comte d'Arlon at Lyons. Eugène Daire wrote a very interesting notice on him (Edition Guillaumin), and his *Œuvres économiques et philosophiques*, preceded by an introduction and note by M. Aug. Oncken, appeared in 1888 at Frankfort.

A. C. f.

QUETELET, LAMBERT ADOLPHE JACQUES (1796-1874), born at Ghent, died at Brussels, was the first promoter in France of the study of moral statistics, which declines to limit enquiry to material facts only, investigating also and classifying moral qualities. He may also be said to have originated, in 1871, the study of anthropometry and of the methods which at the present time are so largely employed in the identification of criminals.

His principal works are:—*Sur l'homme et le développement de ses facultés ou essai de statistique sociale*, 1835, 2 vols. 8vo.—*Lettres à S. A. R. le duc régnant de Saxe-Cobourg et Gotha sur la théorie des probabilités appliquées aux sciences morales et politiques*, 1846, 8vo.—*Du système social et des lois qui le régissent*, 1848. (See sects. ii. and iii. of the first chapter of *Du Système social et des lois qui le régissent*; and the third chapter "Des qualités morales et des qualités intellectuelles," and "De l'Humanité.")—*Physiologie Sociale, ou Essai sur le développement des facultés de l'homme*, 1869, 2 vols. 2nd ed.; *Anthropométrie*

ou mesure des différentes facultés de l'homme, 1871. A. C. F.

QUIA EMPTORES or the statute of Westminster, iii. (18 Edw. I., stat. i.) is the first statute since the conquest which (1) authorised an out-and-out sale of land, and (2) prohibited subinfeudation, or the qualified sale of land under which the purchaser held his land of the vendor. This statute established free trade in land. It did not, however, apply to tenants in villeinage, nor to tenants *in capite* (the landholders who held directly of the king). Before 1290 alienation of land was grudgingly permitted by the Anglo-Norman legislature. Under a law of Henry I. c. 70, a man who purchased land might, but a man who inherited land might not, aliene it, Glanville adding that even then the vendor might only aliene part of the land *quia non potest filium suum exheredare*. Alienation was not only regarded as a fraud on the heir, but also as a fraud on the lord. For instance, Henry III.'s Magna Charta (1217, c. 39, and 1225, c. 32), the most liberal law before *Quia Emptores*, allowed freeholders, other than tenants *in capite*, to aliene only a part of their land; they had to reserve a sufficient part to enable them to perform the rents and services incidental to their tenure. Coke interprets "a sufficient part" as "one half." Even these enabling statutes refer rather to subinfeudation than to out-and-out sales, because *Dedi et concessi*, the operative words of a feoffment, which was the only means of aliening land, meant at that date subinfeudation, not sale, unless sale was expressly mentioned (see Wright). Stubbs describes *Quia Emptores* as meant to do to the feudal lords what *De Religiosis* (1279) was meant to do to the church. Its intention was doubtless political, *i.e.* to limit the independent impositions and jurisdictions of the nobility, but its most important effect was economic, *i.e.* to make land saleable, and, according to Hallam, largely to increase the number of landowners.

As to *tenants in capite*, they could not at this date aliene without licence from the king—the penalty being forfeiture, as in the case of Thomas of Hoton (*Rot. Claus.* ii. 38), or fine. It is said by Butler, Elton, and others that *Quia Emptores* was "extended" to them by 17 Edw. II. st. i. c. vi. and 34 Edw. III. c. 15. But Edward II.'s statute only extended the provisions cited from 9 Henry III. c. 32 to tenants *in capite*; viewed as an enabling statute, it was according to Wright a dead letter; viewed as a disabling statute, it, along with 1 Edward III. st. ii. c. 12, which substituted a fine for forfeiture, only imposed what was practically a tax upon alienations by tenants *in capite*. Edward III.'s statute (1360) only confirms alienations during the reigns of Henry III. and his predecessors "saving the king's prerogative." There is no general prohibition against alienation by tenants *in capite* contained in any statute except these. And no statute expressly prohibits subinfeudation by tenants *in capite*. It is difficult, therefore, to see why the king might not have joined with his tenants in subinfeudating down to 1660, or why they might not have done so without his consent, thereby incurring, at most, a fine. In 1660 feudal incidents, including rent-services, fines on alienation, aids, etc., etc., were swept away except such as existed in connection with memorial and frank-almoign tenures valid at that date. So that since 1660 the question has no importance. Whatever is the answer to the question "When and how far was *Quia Emptores* extended to tenancies *in capite?*" all agree that, as a fact, (1) there has been no subinfeudation—no creation of feudal incidents, or of manors, or of frank-almoign tenures—by tenants *in capite* since either 1290 or 1324 or 1360, by other freehold tenants since 1290; (2) tenants *in capite* have enjoyed free sale (subject to fines) since 1324, and without fine since 1660—these privileges have been enjoyed by other freehold tenants since 1290. And both these results are due indirectly or directly to *Quia Emptores*.

[Wright's *Tenures*, 153 *et seq.*—*Coke upon Littleton*, 43a, 384a.—Coke's *Institutes*, vol. ii. pp. 500 *et seq.*—Blackstone's *Commentaries*, vol. ii. c. 19.—Glanville's *De Legibus Angliæ*, lib. vii. c. 1.—Hallam's *Middle Ages*, iii. 16.—Stubbs' *Constitutional History*, ii. c. 15.—Stubbs' *Select Charters*.—Butler's notes to *Coke upon Littleton*, 191a.—Elton on *Copyholds*, p. 10, note f.] J. D. R.

QUINARIUS. The quinarius or half DENARIUS (*q.v.*) first appeared in 269 B.C., and continued to be issued up to 206 B.C. The type of this first coinage was the head of Roma with the numeral V., denoting five *asses*; reverse, above the word Roma, the *dioscuri* galloping with lances in rest. Its weight was 36 grains, or 144 to the pound of silver. The second issue was about 104 B.C., when the *victoriatus* was withdrawn. It had the type of the *victoriatus*, but was marked with the letter Q. This issue of the quinarius lasted until about 84 B.C. A third began in 49 B.C., and from that time it continued to be coined, though in small quantities and in an interrupted way, under the empire. The senate in the reign of Philip (A.D. 244) ordered a coinage of large bronze quinarii. This form was known as the *Philippus æreus*.

[E. Babelon, *Monnaies de la République Romaine*, 1886.—*Encyclop. Brit.*, 9th ed., vol. xvii., art. "Numismatics."] R. H.

QUINCEY, THOMAS DE. See DE QUINCEY.

QUINTOS, the fifth part of the produce of the gold and silver mines in America, for which, in 1525, the Spanish kings gave up their former exclusive right of property in these. In 1723 and 1777 this contribution was reduced to 1½ per cent for silver and 3 per cent for gold.

[Canga Argüelles, *Diccionario de Hacienda* (1826).] E. Ca.

QUIT RENT. A small fixed annual payment, formerly made by the tenants of a manor in commutation of all customary services

and payments in kind. Quit rent was sometimes written white-rent, whence some antiquaries have maintained that quit rents were paid in silver; white is, however, probably nothing but a phonetic variation of quit.

[Cowel, *Interpreter.*] A. E. S.

QUITTANCE. Low Latin *Quietancia.* When an officer accounting at the exchequer, or elsewhere, paid in the exact sum of money due from him to balance his account, the words *Et quietus est*, or *Et equatur*, used to be written at the foot. When this *quietus* was granted, whether the officer had actually paid or been excused payment, he was said to have a *quietancia* or quittance. A. E. S.

[Du Cange, *Glossarium.*]

QUORUM. The minimum number of the members of a committee or of any administrative body, whose presence is necessary to constitute a competent business meeting. The number constituting a quorum at the meetings of shareholders or directors in a company is generally fixed by the articles. This use of the word *quorum* has arisen out of the terms in which commissions for holding sessions of justices were formerly couched. Of the whole number of persons holding commission as justices of the peace, only certain individuals were held to be competent to preside at sessions. These were specifically named in the commission that was issued directing the sessions to be held, at which it was required that at least two justices should be present, of whom one must be of these persons; or, as it ran: "*quorum AB, vd CD, vd EF, unum esse volumus.*" These persons were usually termed "justices of the quorum." The quorum clause was omitted when the form of commission was revised under 40 & 41 Vict. c. 41 (1877). Since the beginning of 1878, the names of all the justices of the peace for the county have been inserted in a schedule attached to the commission.

R. W. B.

QUOTA. A proportion, a part or share. The part which every shareholder or member of a company or society is bound to contribute; also the proportion of dividend belonging to each member. R. W. B.

QUOTATION. On the stock exchange, or in commercial markets generally, the price of the day as quoted in the official list of any particular security or commodity. R. W. B.

QUOTITÉ DISPONIBLE (Fr.). The right to dispose of property by will or by gifts *inter vivos*, being restricted in France in the case of persons having or leaving heirs in a direct line, descending or ascending, the *quotité disponible* is the portion of which they have the free disposal. This portion is one half if the deceased leaves only one legitimate child, a third if there are two, a fourth if three or more; any number of grandchildren counting only for their respective parents. If he leaves no descendants, but ascendants in both lines, paternal and maternal, the disposable portion is one half; if in one line only, three-fourths. If he leaves neither descendants nor ascendants, the testamentary restriction ceases. Gifts *inter vivos* are counted as part of the *quotité disponible* and cannot prejudice direct heirs.

[Code Civil, arts. 913-919. See also BEQUEST, POWER OF; WILL, BEQUEST BY.] T. L.

QUOTITÉ AND RÉPARTITION (Fr.). The two great divisions in the system of taxation in France. *Impôts de quotité* are based on tariffs, the yield of which can only be estimated approximately, as is the case with the revenue from stamps, successions, dividends and interests, customs duties, etc. In *impôts de répartition* the state fixes the sum the tax is to produce, and an assessment is made of the portion to be provided by each of the administrative divisions of the territory; first by the central authority among each of the departments; the council-general of the department next divides the total sum between each arrondissement; the councils of arrondissement then subdivide their contingent among the communes; and finally local councils in the communes assess each property holder for his contributive share according to the land register book. Direct taxes are generally *impôts de répartition*, but the trade license or PATENTE (*q.v.*) is an exception, and the doors and windows tax is a mixed system; repartitive in the total but an *impôt de quotité* in the incidence, the portion to be paid by each landlord increasing not only with the number of doors and windows, but also with the population of the locality. A certain latitude is also permitted to the local authorities in the assessment of the *mobilier*, or tenants' occupation tax, provided that the total sum due by the commune is realized and not exceeded. The system of repartition has advantages for the prevention of fraud in countries with a rudimentary or defective administration, as the inhabitants exercise a control over each other, knowing that if some individuals do not pay their fair share of the tax, the burden will fall more heavily on themselves. On the other hand, this mode of taxation presents greater inequalities, as it does not follow the development or decline in the value of real property in the different departments or communes, and the balance can only be restored by a periodical general survey.

[Edouard Vignes, *Traité des Impôts en France.*—P. Leroy-Beaulieu, *Traité de la Science des Finances.*] T. L.

RACK RENT. A rent equal to the full annual value of a tenement. Sometimes a special meaning is given to the term in a statute, *e.g.* the Public Health Act 1875, defines for the purposes of the act a rack-rent as a "rent which is not less than two-thirds of the full net annual value of the property out of which the rent arises."

[Copinger and Munro, *On Rents*, London, 1886.]

J. E. C. M.

RADMANNI. The *rodknights* or *radchenistres* of Domesday. These were free proprietors with considerable holdings, and their service was to ride as escort to the lord or lady of the manor, a duty which could scarcely be performed by men who were not of free condition. Maitland's *Select Pleas in Manorial Courts*, p. 78, show a *rideman* employed to enforce army service. The Gloucestershire *liberi homines radchenistres* (Domesday, f. 163) had villeins on their land, while in Worcestershire Lefric the radman held a hide and a virgate. Some, however, seem to have been unable to leave the manor, that is, to sell their holdings, and others were bound to render small predial services. Bracton, i. 279, classifies their tenure as *petit serjeanty* (see SERJEANTY, PETIT).

R. H.

RAE, JOHN (1786-1873), probably a native of Scotland or the Orkneys, perhaps the father of Rae the arctic explorer, after pursuing in youth the vast design of "gathering together all that consciousness makes known to us of what is within and all that observation informs us of what lies without," into "a true *Natural History of Man*, by a sudden and unexpected change in his circumstances . . . exchanged the literary leisure of Europe for the solitude and labour of the Canadian backwoods" (preface to *New Principles*). Here he composed his *New Principles on the Subject of Political Economy*, which was published at Boston in 1834.

The main purpose of the book is set forth in the title: *Exposing the Fallacies of the System of Free Trade and of some other Doctrines maintained in the "Wealth of Nations."* Distinguishing between individual and national wealth, Rae says it is easy to understand how one individual comes to get hold of a large share of the national means, but not "how a general increase of these means or instruments should take place without some accompanying discovery of an improvement in their construction" (p. 19). The national capital would not be much increased by the indefinite multiplication of flails (p. 20). To attribute the growth of wealth to parsimony would be like attributing it to population. Both are necessary conditions, but we need take no thought for their growth, provided that invention progresses (bk. i. ch. i.). "Invention is the only power on earth that can be said to create." Adam Smith's dictum that "the industry of the society can augment only as its capital augments," is combated at length (ch. ii.). Rae instances the case of two brothers in the interior of Canada who, in order to get boots made on their own farms, "were at the pains and expense of sending one of the young men to some distance to master the trade of shoemaking." Why should not government similarly introduce inventions? The argument for protection of infant industries (as we should now say) is forcibly urged by Rae in the second chapter of his first book.

The second book, *Of the nature of Stock*, forms Rae's principal contribution to economics. He applies the term "instruments" to "all these changes which man makes in the form . . . of material objects for the purpose of supplying his future wants." A field is an instrument; so is the wheat growing in it; and bread, "until it is in process of consumption." *Exhaustion* is the "passage of things from the class of instruments into things which are not instruments" (p. 92). Instruments may be arranged in an order—A, B, C—determined by the period at which each issues, or would issue if not before exhausted, in a result equivalent to double the labour expended on it; order A doubling in one year, order B in two, and so on. The causes determining the amount of instruments formed by a society are enumerated as (1) the quantity and quality of the materials owned by it; (2) the strength of the *effective desire of accumulation* (a term adopted by Mill); (3) the rate of wages; (4) the progress of the inventive faculty.

The second and fourth causes are chiefly considered by Rae. He begins by showing that mere postponement—the arts of production being stationary—is apt to increase produce (ch. v. cp. Böhm-Bawerk on *Roundabout Methods*); then (ch. vi.) investigates the circumstances which determine the strength of the effective desire of accumulation. They are (1) the benevolent affections; (2) the intellectual powers; (3) security. His account of that preference for the present which cannot be ascribed to a "mere reasonable regard for their own interest"—Jevons' factor q as distinguished from p—deserves to be quoted in full: "The actual presence of the immediate object of desire in the mind, by exciting the attention, seems to rouse all the faculties, as it were, to fix their view on it, and leads them to a very lively conception of the enjoyments which it offers to their instant possessions. The prospects of future good which future years may hold out to us seem at such a moment dull and dubious, and are apt to be slighted for objects on which the daylight is falling strongly, and showing us in all their freshness just within our grasp. There is no man, perhaps, to whom a good to be enjoyed to-day would not seem of very different importance from one exactly similar to be enjoyed twelve years hence, even though the arrival of both were equally certain" (p. 120). The different degrees of strength of the effective desire of accumulation are illustrated by splendid examples taken from different ages and countries (ch. vii.). In China, for instance, "instruments are about the order D." But long extracts, such as those which Mill has made, would be required

to do justice to these concrete illustrations. In a later chapter (x.) Rae dilates on the progress of invention in language almost worthy of Bacon. The accumulative and inventive faculties are his main theme; incidentally he has enunciated some important economic principles. For instance, among the advantages of division of employments (p. 164), that no instruments lie idle; that among the conditions determining value distance in time as well as quantity of labour must in general be taken account of. One of his most remarkable theorems is that the consumption of articles of *luxury*—which is defined as "the expenditure occasioned by the passion of vanity"—decreases with the reduction of cost. "Were pearls or lace to be got for one-tenth of the labour that must now be given for them, they would go completely out of fashion" (ch. xi. pt. i.; cp. Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 2 note; H. Cunynghame, *Economic Journal*, vol. ii. p. 37). The most original suggestion in the third book—which treats "the operations of the legislator"—is that by a tax on luxuries revenue might be raised without sacrifice to the consumer (bk. iii. ch. ii.).

John Rae, *Statement of some new Principles on the Subject of Political Economy exposing the Fallacies of the System of Free Trade and of some other Doctrines maintained in the "Wealth of Nations,"* Boston, 1834. [J. S. Mill, *Principles of Political Economy*, bk. i. ch. xi.—*Quarterly Journal of Economics* (January 1897), "A Forerunner of Böhm-Bawerk," by C. W. Mixter.—*North American Review*, vol. xl. (high encomium tempered with, perhaps, just complaints of Rae's terminology).] F. Y. E.

RAIFFEISEN, Friedrich Wilhelm (1818-1888), founder of the German agrarian loan funds, was son of the burgomaster of Hamm on the Sieg. Educated at home, he at first entered on a military career, which, through an affection of the eyes, he was soon forced to abandon. He then turned to official life, and filled several municipal and other public positions with great industry and distinction. The difficulties of the smaller agriculturists in 1846-47, which he attributed to their bad credit and consequent liability to extortion from unprincipled usurers, led him to establish in Meyerbusch and Heddersdorf, of which he was burgomaster, the first agrarian mutual loan societies which existed in Germany; and to the extension of these institutions he devoted all his energies both as propagandist and as organiser. He founded in 1878 a periodical entitled *Landwirthschaftliches Genossenschafts-blatt* as organ of such associations, in explanation and defence of which he issued several independent publications, the most important being *Die Darlehensvereine* (7th ed., 1889). He was also active in the sanitation of the districts with which he was officially connected. His labours so seriously impaired his health that he was obliged in 1866 to retire from active employment, but continued to superintend and improve the institutions he had created, and also did good service in promoting the construction of the railway on the left bank of the Rhine. He is held in grateful memory by the inhabitants of the Rhenish provinces, to whose material and moral welfare he so largely contributed.

The institutions founded by Raiffeisen were specially designed for the wants of an agricultural population. Their peculiar features will be best understood by a comparison with the *Vorschussvereine* created about the same time by Schulze-Delitzsch, which are better adapted to urban communities. In these, loans are made for short periods, and the interest charged is as high as from 8 to 12 per cent. The members are shareholders and receive dividends. The managers are paid. The area over which transactions extend is unlimited. Nothing but the financial security of a loan is considered; no account is taken of the use which the borrower makes of it, or of his personal character. All these conditions are changed in the *Darlehenskassenvereine*. Raiffeisen intended them to serve moral as well as economic ends, by awakening sympathy and fortifying the social ties between inhabitants of the same rural district. Only members of an association can obtain a loan; it must be sought for a definite productive object, and the association is entitled to ascertain that it is *bona fide* used for that object. It is a cardinal principle of the system that the operations of each association should be restricted to a small area, which, in Raiffeisen's opinion, ought not to contain more than 1500 souls. It is thus ensured that the members should know each other's character and circumstances—a condition necessary for their financial safety, the mutual liability being unlimited. Not more than 4 or 5 per cent is charged to the borrowers. No dividends are paid; any profits realised, after expenses are defrayed, go, not to the members, but to a reserve fund to cover losses; and when they exceed a certain amount, they are applied to purposes of common utility. The loans are for one or two, sometimes for five or even ten years; when there is urgent danger of loss, the loan may be called-in within so short a time as four weeks. The managing committees work gratuitously; the only salaried officer is an accountant (*Rechner*), who receives a small stipend. The principles on which Raiffeisen founded these institutions were at first much disputed, but have been vindicated by their success. They have effectually delivered the German agriculturists, especially the small and middling proprietors of land, out of the hands of usurers. According to recent accounts, none of them has become bankrupt; liquidations have been rare, and have not caused material loss to the members. They have extended from Germany to other countries, and are now numerous in Austria, Switzerland, and Italy.

To enable the different German associations to render mutual support, a *Landwirthschaftliche Centraldarlehenskasse* was established in 1876, which has its seat at Neuwied.

[For the life of Raiffeisen, see Leisewitz in *Allg. Deutsche Biogr.*, and Schmidt in *Handb. der Staatsw.*; for his institutions, Marchet in the latter work, ii. pp. 906 *et seq.*, and Von der Goltz in Schönberg's *Handb. der P. E.*, pp. 123 *et seq.*]

[See also BANKING; LAND BANKS, GERMANY.]

J. K. I.

RAILWAYS.

Railways, p. 252; Light Railways, p. 258.

RAILWAYS. Though railroads in a rudimentary form date from the 16th century, while the history of steam-traction goes back to Cugnot in 1771, the entire existing railway system of the world has, with negligeable exceptions, been constructed, as far as England and the United States are concerned, within the last seventy years, and, as far as other countries are concerned, within the last sixty. In that time about 450,000 miles of line have been built, nearly one half of which is in North America, the United States alone counting for over 180,000 miles. Europe has about 155,000 miles. The five great powers headed by Germany with 27,000, and finishing with Austria which has 17,000, average about 21,000 miles apiece, which last figure is also the total for the United Kingdom. British India and Australasia have 30,000 between them, shared in tolerably equal parts. The balance is mainly either in South Africa or in South America. The cost of the world's railways reached, in 1895, the enormous total of £7,336,000,000, a figure of some interest when compared with the total capital of the commercial countries of the world, or with the amount of their national debts. As Professor Hadley observes ("The Railway in its Business Relations" in *The Railways of America*, London, 1890, 8vo), the railway "probably represents one-tenth of the total wealth of civilised nations, and one-quarter, if not one-third, of their invested capital. It is doubtful whether the aggregate plant used in all manufacturing industries can equal it in value. The capital engaged in banking is but a trifle beside it. The world's whole stock of money of every kind—gold, silver, and paper—would purchase only one-third of its railroads."

The total sum is, however, made up of individual costs so completely different that no conclusion or average of any practical utility can be extracted from them. To attempt to base any practical conclusions on such an average would be as absurd as to average together a mile of a Devonshire lane, another mile of the Simplon or the Corniche Road, and a third mile of Oxford street. In England itself, whose railway capital averages over £50,000 a mile, we have individual lines capitalised at from £2000 to £1,000,000 per mile. Nor can any one say how far nominal capital represents either actual expenditure or present value. For example, under the first head, the share capital of many American railways was originally issued for but a tithe of its face value. Against this, American railways every year spend out of revenue immense sums on what in any other country would be regarded as fair objects of new capital expenditure. Again, continental railway capital has already been in considerable measure paid off through sinking funds. Instances under the second head are, on the one hand, the great sums sunk in England in parliamentary contests, in lines to collieries and mines now worked out and abandoned, or, on the continent, devoted to paying interest at a high rate on capital, not only during construction, but during what is called in France *exploitation partielle*; and on the other, the immense appreciation in the value of the real property held by railway companies, both agricultural lands in newly-developed countries, and, still more, building sites in the heart of great towns, whether as old as London or as new as Chicago.

In England and the United States, which have between them half the mileage and half the capital of the world, practically the whole of the money has been found by private enterprise, in England controlled and directed throughout by public authority, in America left in the main unrestrained. In the remaining countries of the world railway capital has been provided, if not directly by the state, then in reliance on state assistance, usually in the form of a direct government guarantee. Belgium, the smaller German states, and our Australian colonies, may be taken as leading instances of government construction; France, and in a former generation India, as leading instances of government guarantee. Government aid may, however, also be given, and has been given in many other forms—loans on favourable terms as in Ireland, grants of land as to the Canadian Pacific, special exemptions from customs, taxes, and local rates, as in Austro-Hungary, subscription to shares, more especially deferred shares, as in many continental countries, or, finally, direct gifts of money, as has probably occurred in every country of the world with the exception of England in the limited sense of the name. Contrary to what might have been *a priori* expected, the railway capital found by unaided private enterprise bears interest at a lower rate than the capital raised on state security. Railway capital in England earns on the average about 4 per cent, and in the United States only 3 per cent. On the other hand, in India the guaranteed dividends, owing to the depreciation of silver, work out to about 8 per cent, while in France two of the six great companies

are guaranteed 7 per cent on their share capital, which, however, is not a large portion of the total, two other companies 10 per cent, one 11 per cent, and one 13 per cent. The guarantee system often produces unexpected results; for example, in France the state prohibits railway competition; on the other hand, it has spent and continues to spend very large sums in improving internal water communication. Private carriers along these improved waterways, which are entirely free from toll, have of late years carried off so much traffic from the railways, more especially from the *Ouest*, which runs along the canalised Seine, as to deplete very seriously the railway earnings, and so to add to the amount which the state has to make good under its guarantee (see on this point more especially Ulrich's *Staffeltarife und Wasserstrassen*, Berlin, 1894, 8vo, and Colson's *Transports et Tarifs*, Paris, 1890, 8vo). Italy has handed over its railways, which are also guaranteed, to two great companies—the Mediterranean and the Adriatic—operating the one along the western and the other along the eastern coast of the peninsula, but meeting each other at all the principal points, at Naples and at Rome, at Florence and at Milan. Consequently they are encouraged to compete with one another, but do so at the cost of the state. This Italian system is now over ten years old. Within the last few years it has been followed in Holland. Of purely state lines, the Prussian railways not only pay their way, but leave a handsome surplus, so do the state railways of the Cape and Natal. The Belgian and Hungarian railway budgets about balance. But the general rule is, with unimportant exceptions, that from St. Petersburg to Sydney, state railway earnings are insufficient to meet working expenses and capital charges, and a deficit more or less large has to be made good at the expense of the general taxation of the country.

Turning from capital and finance to management and methods of working, the United States comes first as the country where railways are most independent in fact, though not in theory. In many states of the American union laws, whose constitutionality is in many instances more than doubtful, but which the state authorities rarely attempt to enforce, while the railway companies almost always disobey or evade them, appear to lay very stringent fetters on railway freedom. Practically speaking, however, an American railway company constructs a line when it pleases, where it pleases, how it pleases, runs what trains it likes at such times and speeds as it thinks proper, and, subject to the obligation which in America is regarded as arising at common law to treat all its customers equally without individual favour or preference, charges such fares and rates as the higgling of the market may enable it to obtain. In England this freedom is very greatly circumscribed. Parliament decides whether, and under what conditions, a railway shall be built. The Board of Trade control over methods of construction and working has existed from the beginning, and since 1889 has become dominant. Rates and fares have always been subject to Parliamentary *maxima*, presenting throughout serious limitations in the case of passengers, though not often in the case of goods. Since the beginning of 1893 these limitations have become very stringent for goods also, while since August 1894 it has been practically enacted that, though goods rates may be reduced at the pleasure of the companies, they can never be varied in an upward direction. Still by the side of the continental companies, which as a rule cannot alter the timing of a single train, or vary a single rate of charge, or change in the smallest detail the construction and equipment of their lines, down even to the carpets and curtains in the general manager's office, without direct state authorisation, our English railways must be acknowledged to enjoy a large measure of freedom. When we pass from private railway undertakings to state railways the government naturally settles everything. But even here an important distinction must be drawn, and on the one hand in autocratic countries like Prussia we find voluntary railway councils, composed of merchants and manufacturers and the like, organised with the object of interpreting to the bureaucratic administration the wishes of the outside community, without, however, any power to make those wishes effective; on the other hand, in purely democratic countries like our Australian colonies we find semi-independent commissioners, imported as a rule from outside, and holding office for a fixed term of years, interposed to prevent the railway management being too sensitive to passing gusts of popular opinion, or too promptly responsive to direct political control.

The point where railways most definitely enter the field of economics is the matter of rates and tariffs. A word first as to the machinery by which railway tariffs shall be regulated. It may be assumed that even where railways are private undertakings, some measure of regulation by the state is practically, though not perhaps theoretically, unavoidable. This regulation may take very various forms. In France the control is purely administrative. The minister of public works, with the assistance of about 1000 trained subordinates scattered all over the country, and of a *Comité Consultatif* of fifty or sixty experts of high position, decides the propriety of every proposed new rate. In England we began by fixing parliamentary maxima, and leaving the companies free to vary their rates as they pleased within them, subject

only to judicial penalties if they treated one customer worse than another. The interpretation of the common law, however, as modified by the acts of 1845 and 1854, was too much a matter of policy and economics, and too little of pure law, for judges to take kindly to it. As the railway horizon widened, and competition of individuals on the same spot gave place to competition between different parts of the country, and this, in its turn, to competition between different countries and continents, the inadequacy of the machinery became obvious. The Traffic Act of 1873 set up a new tribunal, in the main a law court, but containing a preponderating lay element; the Act of 1888, while further strengthening the powers of this composite court, set up beside it, for certain purposes and with limited jurisdiction, a purely administrative tribunal in the shape of the Board of Trade. Judging from present indications, it may be said that, while the administrative tribunal is much more prompt and does its work in a much simpler and cheaper manner, it is only adapted for the decision of comparatively simple and small cases. It may be that the legislation of 1894 points to what will be our ultimate solution of this problem, an administrative tribunal of first instance with no compulsory powers, followed, if need be, by an appeal to a semi-legal tribunal wielding the full authority of an ordinary court of justice. In America, control over traffic within the limits of a single state belongs to the state government. Interstate traffic can be only regulated by the federal authorities. Interstate commerce was left uncontrolled till the year 1887, when a federal tribunal, which however lacked and still lacks the powers of a court of justice, was set up at Washington. Recent decisions of the supreme court (1897) have reduced its powers almost to a nullity (see INTERSTATE COMMERCE LAW, U.S.A.). State regulations of local rates has a long and most interesting history. Broadly the states have divided themselves into two groups. Both groups have established commissions, with members both lay and legal. But while the one, led by Illinois, has empowered the commissioners to fix rates and compel, if they could, their observance, the other, led by Massachusetts, has empowered their commissioners merely to express opinions as to what the rates ought to be. The result may be said to be this: commissions of the Illinois type begin by giving orders, which the railway companies often ignore or defy, which experience proves them to have rightly defied, and which, after a time, the commissioners themselves are satisfied to forget; commissions of the Massachusetts type express opinions, to which the railway companies find themselves constrained to conform. [See on the American state commissions, Frank H. Dixon, *State Railway Control*, in American Library of Economics and Politics, 1896; and F. C. Clark, *State Railway Commissions*, in publications of American Economic Association for 1891.]

More important than the question by whom tariffs are to be fixed and controlled is the question of the actual amounts of the tariffs themselves. According to the German economists (see Sax, *Verkehrsmittel*, Vienna, 1878, 8vo, with a second volume *Die Eisenbahnen*, 1879) private railway companies will always fix their tariffs so as to obtain the largest possible revenue. State railways tariffs, on the other hand, may be fixed (*a*) to earn an income to the state beyond the sum necessary to pay interest on capital — this Sax calls *Steuerprinzip*; (*b*) just to cover working expenses and interest — *Gebührenprinzip*; (*c*) to cover working expenses or part of them but not interest (sometimes called *Prämienprinzip*); or (*d*) there may be no tariffs at all and railways be open for public use gratis—this Sax calls *Prinzip eines allgemeinen Genussgutes*. Such is the theory. But in practice private railways are restrained from theoretically possible extortion partly by legal maximum tariffs, but much more by the fact that the highest rates seldom yield the highest revenue, and by the competition of other producing and consuming districts. The *Steuerprinzip* is the principle at which every state administration naturally aims. Only one important state railway administration, the Prussian, has attained it in practice, but the Cape Colony and Natal have reached the same result for the last two or three years, and it is also reached in another field of transport by the British post office. So far as state railway administrations have come down to the level of the *Gebühren*, or even *Prämienprinzip*, they have done so under compulsion either political or economic. None have yet reached, or indeed sought to reach, the stage of gratuitous use, nor indeed is this position likely to be attained in practice. It is true that in every country the state provides roads for gratuitous use. In many continental countries it provides internal waterways gratuitously as well, but it has never sought to provide gratuitously carts, omnibuses, and barges or the horses to draw them, and in the case of a railway its special technical qualities render inseparable the provision of the three elements of transport, road, rolling stock, and motive force.

Tariffs may be classified also in reference to their form. Dealing with passenger tariffs first as being much the most simple, they may be said to be always based on mileage. The possibility of adopting a different, the so-called "postal," principle, which ignores mileage altogether, has frequently been discussed by theorists, more especially in Germany (see Ulrich, *Personentarifreform und Zonentarife*,

Berlin, 1892, 8vo; Perl, *Les Reformes des Tarifs de Voyageurs*, Brussels, 1893, 8vo (originally published in Russian); and Professor James's article "Reform in Railway Passenger Fares" in the *Quarterly Journal of Economics* for January 1891). As the question is not likely ever to become one of practical politics it may be dismissed with this single observation. A uniform charge irrespective of distance is possible in postal business for two reasons, (*a*) because the cost of actual conveyance is but small relatively to the total cost of dealing with a letter, and (*b*) because the amount involved in each individual case is absolutely trifling. Almost the whole cost of passenger traffic is conveyance cost, and it is not trifling. Such charges cannot be averaged. For instance, the average English passenger pays about 8d., but this average is made up of first-class passengers from Euston to Wick, and third class passengers from Charing Cross to the Mansion House. If passengers will consent to pay 8d. from Charing Cross to the Mansion House, it may be possible to carry other passengers from London to Wick for the same money; but not otherwise. The zone tariff of Hungary, and the less famous zone tariff of Austria, have been frequently described as a concession to the postal principle. These are mere mileage tariffs with the unimportant alteration that charges are made and accounts kept in units which are multiples of a mile.[1] Mileage tariffs, however, need not be at the same rate per mile throughout. A system by which the rate per mile decreases in proportion as the number of miles increases, has long been in existence for goods, and of late years has been adopted for passenger traffic also. Such tariffs are known abroad as *à base décroissante* or *barême Belge* from their country of origin, in Germany as *Staffeltarife;* if we have an English translation, it is perhaps "differential rates," though "sliding-scale rates" would be more appropriate. Since December 1894 this principle has been adopted throughout the Russian empire. Finally, in every country, besides the normal fare there are some important derogations from it in workmen's tickets, season tickets, tourist tickets, circular tickets, excursion tickets, return tickets, and so on. These exceptions are sometimes so important in modifying the general average, that in France the actual fare paid per mile by passengers of each class is only about two-thirds of the regular tariff of that class. In England too there is reason to believe, though in the absence of statistics no precise figures are attainable, that the average fare is not more than ¾d. per mile, whereas the regular tariff rate for the lowest class is 1d. In America, with the most highly competitive system in the world, the standard and average passenger rates seem to correspond more nearly than in other countries.

Turning from passengers to goods, whereas passengers classify themselves, goods rates are based on elaborate classifications drawn up and enforced by the railway administrations. There are usually from four to ten categories—the English classification has eight—into which goods are divided according to the following considerations: value, proportion of weight to bulk, fragility, convenience of handling, volume available or offered for carriage. Goods in the highest class will be charged in England perhaps five times as much per ton per mile as those in the lowest; in America the ratio is more like one to ten. Theoretically, the German railways have no classification. Their so-called "reform" tariff professedly charges one and the same mileage rate for all goods conveyed in small lots; another and much lower rate for the same goods when conveyed in half-truck loads of five tons; and a third still lower rate for full ten ton consignments. Practically, however, the "small consignment" or unclassified rate only applies to about 5 per cent of the traffic, and the remaining 95 per cent is, by means of a system of special classes, much too elaborate to be described here, classified for practical purposes almost as much as the traffic of any other country. Now the effect of classification is this, that a ton of copper ingots is charged, say, 3d., a ton of lead pigs 2d., and a ton of pig-iron 1d. per mile, though the cost to the railway company, except for a trifling allowance under the head of insurance against theft, is in all three cases identical. In other words, the railway systems of the world, state as well as private, agree in charging traffic "what it will bear," in basing, that is, their rates not on what the service costs them but on what it is worth to their customer. The phrase "charging what the traffic will bear" has been described on high authority as a "vile phrase." Yet the principle involved in it when applied to a water rate levied according to rateable value, so that the poor man pays only actual cost of pumping, and the high charge on big houses bears the whole interest on capital, is usually regarded as wise and statesmanlike. The point cannot be further elaborated here. This much may, however, be said: if the maxim be considered from its reverse side as meaning "not charging what the traffic will not bear," it will be seen to involve a principle, not of extortion, but rather of protection to the weak, and careful consideration of the community as a whole. In fact the principle

[1] The famous Hungarian 14th zone, which equalises all fares beyond a distance of 225 kilometres (141 miles), is of very small practical importance, as there exists almost no traffic to which the rule can be applied. The motive, moreover, for the establishment of this zone was the purely un-ideal desire of the Hungarian state railway administration to abstract certain long distance traffic from neighbouring private railway companies.

might be amplified into that which is commonly accepted as a canon of just taxation—so to raise the necessary revenue, which in this case is working expenses *plus* interest on capital at the normal rate, that the individual contributor shall feel the pressure as little as may be, that the cost of collection shall be minimised, that luxuries shall be taxed rather than necessaries, and so on. The use of the word "taxation" for the levying of rates and charges by private undertakings should perhaps be justified. Theoretically of course the power is of too important, it might almost be said of too imperial a nature, to be left in the hands of private persons that they may use it for their own private gain. The strong analogy, therefore, between railway rates and taxation evidently forms ample theoretic justification for stringent state control. At the same time, half a century's experience enables us to say *a posteriori* that the railway taxation of private companies is not levied in a different or more oppressive manner than that of state administrations.

Another analogy with taxation cannot be left unnoticed. As the great services of a country, the army, the navy, the civil service, and so on, are provided not for any one section of the community but for the benefit of all, so the vast bulk of railway expenditure—the whole, namely, of the capital outlay and the larger part of the working expenses—is provided for the benefit of the traffic as a whole, and not for any particular portion of it (see Taussig, "Contribution to the Theory of Railway Rates," *Quarterly Journal of Economics*, July, 1891; and Acworth, "Theory of Railway Rates," *Economic Journal*, September 1897). Yet further, even if we could tell the actual cost of working, say, an individual train from London to Edinburgh, we are as far as ever from knowing what it costs to carry each passenger, for the train cost is practically the same whether ten of them are carried or two hundred. A demand for rates based on cost of service is then a demand for what cannot be given, and for what, if it could be given, should in the public interest be refused. It may be added that a demand for equal mileage rates, sometimes assumed to be a demand for cost of service rates, is in fact a demand for something quite different. For wide as are the divergencies between existing ton-mile rates, the divergencies of the actual cost of carriage per ton per mile under different conditions are immensely wider.

We can only here enumerate the special economic problems affecting railway management. One of the most important for us in England at this moment is the question of exceptionally low rates for import, export, and transit traffic. All countries have specially low export rates, and transit rates likewise if their geographical situation be such that they are thereby enabled to direct on to their lines any important international traffic. As for special import rates, when they have been abolished, as they have been recently, except in very special circumstances, both in France and Germany, they have been abolished as part of an avowedly protectionist policy. So far, moreover, are they from being a characteristic vice of private railway management that they scarcely exist in the United States, while the excess of ordinary domestic rates over import rates has perhaps nowhere been more marked than on the government railways of our own colony of Victoria. A problem almost purely economic is the question of the ratio which the rates for wholesale quantities, say train loads or truck loads, should bear to the rate for small consignments. Should there be any difference? If so, should it be roughly equal to or more or less than the difference of cost to the carrying railway? In other words, is it in the public interest to encourage economical methods, even at the risk of concentrating trade in but few hands? English and American courts, interpreting a practically identical law, have taken diametrically opposite views upon this point. Or again, how far is the apparent injustice—apparent only, for obviously in certain cases there is no injustice at all—of charging £1 for 200 miles and only 15s. if the railway is permitted to carry the goods 100 miles further along the same road, so offensive to the instinctive sense of justice of the ordinary plain citizen as to entitle the legislature to prohibit any such practice outright. The "long and short haul clause" of the American Interstate Commerce law has practically broken down. Is it best to forget it or to try and refurbish it for future use? Or again, take the question of "group" rates. How far is it justifiable for the sake of simplicity and uniformity to charge the same rate, say from the Barnsley group of collieries to Hull for shipment, though the percentage variation in distance be considerable? In other words, has a trader what he sometimes terms "a natural right to his advantages of geographical situation"? If so, how did he get this right, and is he entitled to maintain it even though the public interest should lie in the direction of new competition compelling him to reduce his prices? Or once more, in early days in England firms of carriers acted as intermediaries between the railways and individual traders. As far at least as retail traffic is concerned, the "express" companies in America and the *Spediteure* in Germany hold the same position still. Which system is most in the public interest? It may be assumed that the English system does the work cheaper and more promptly. Is this gain counterbalanced by the extra weight thrown into the scale of the already too powerful railway organisation? These are

only a few of the questions of great practical importance urgently in need of treatment by impartial persons in a scientific spirit.

A more important question is that of "pooling" and combination on the one hand, and of competition on the other. How far is competition, (*a*) in charges, (*b*) in facilities, in the public interest—a question on which much has been written *a priori*, but which now seems ripe for solution by the more fruitful method of induction from experience? In England, public authority, which has at times interfered—now to promote and now to forbid competition, —has in the main stood neutral. On the Continent, pools are a matter of course, equally whether the railways be in public or private hands. In America, congress interfered for the first time in 1887 by making every COMBINATION in the nature of a POOL illegal and penal. The house of representatives in 1894 passed a bill repealing this prohibition, but it failed to pass the Senate. Nor has it become law up to the time of writing (1898). Further, the Supreme Court, by its decision in what is known as the Trans-Missouri case, seems to have laid down that all railway combinations are illegal not only under the Act to regulate commerce, but also under the Anti-Trust law. In the interval, that has happened which railway economists foretold at the outset. The public has suffered worse than before from the sudden changes, the unequal rates, the secret discriminations which congress thought to prevent. In addition, some 45,000 miles of railway property have become bankrupt and passed into the hands of receivers, one instance at least in which problems of railway economics can hardly be thought to lack either importance or actuality.

For the scientific study of these and other similar problems no provision whatever is made in England; and it may perhaps be added that English railway management, which in the early days, when all was rule of thumb and no fixed rules had been laid down, was undoubtedly the first in the world, already shows signs of suffering from the lack of it. For the railway profession of other countries not only has access to such scientific teaching, but knows how to profit by it. In America at all the leading universities —at Harvard, at Yale, at Columbia, the work is in the hands of well-known economists like Taussig, Hadley, and Seligman. The Leland Stanford University in California, the creation of one of the founders of the Union Pacific Railway, possesses not merely railway courses but a railway library, practically exhaustive of its subject. In England not only have we no railway library, but our ordinary libraries lack even the recognised text books on the subject. Nor are continental countries behind America. There are regular railway courses at the Prussian universities of Berlin, Bonn, and Breslau, at Vienna, and many places more. One of the most brilliant books on railway economics, *Transports et Tarifs* (already cited), is based on a course delivered by its author, M. Colson, lately the permanent head of the railway department of the French ministry of public works, in the Paris *École des hautes Études Commerciales*. Nor are students of a lower grade neglected. In Buda-Pesth there is a railway school corresponding in rank to the upper classes of a *Realschule*. At Biel in Switzerland there is what might be called a middle class railway school; and similar schools exist throughout Russia, in Vienna, and even in our Australian colonies.

[The bibliography of the subject comprises unfortunately but few books in English, and even of these the valuable ones are not written by Englishmen. The following English works may, however, be cited as possessing at least an antiquarian interest: Fairbairn, *Political Economy of Railroads*, London, 1836, 8vo. — Lardner, *Railway Economy*, London, 1850, 8vo.—Morrison, *English Railway Legislation*, London, 1848, 8vo. For a general survey of the whole subject the following American books may be recommended: —Hadley, *Railroad Transportation*, New York, 1886, 8vo.—Adams, *Railroads, their Origin and Problems*, New York, 1888, 8vo.—Fink, *Reports and Testimony before Legislative Committees on the Subject of Railroad Transportation*, New York, various dates, 8vo (a volume of pamphlets collected by their author, but not published). For English railways in particular the reports of the royal commission of 1865-67, the joint parliamentary committee of 1872, the House of Commons committees of 1881-82, the board of trade commissioners of 1889-90, the parliamentary joint committees of 1891-92; the House of Commons committee of 1893, contain a mass of information. On the special railway rates controversy of the last ten years, the traders' side of the case will be found in Buckingham Pope, *Railway Rates and Radical Rule*, London, 1884, 8vo, and Waghorn and Stevens, *Railway and Canal Traffic Act*, 1888, Report, Manchester, 1890, folio; the railway answer in the works of Grierson, *Railway Rates, English and Foreign*, London, 1886, 8vo; and Acworth, *The Railways and the Traders*, London, 1891, 8vo. Much fuller than the English railway literature is the foreign literature about English railways. Of German works there may be cited those of Cohn, *Englische Eisenbahnpolitik*, Leipsic, vol. i. 1874, vol. ii. 1875, vol. iii. 1883, 8vo.—Reitzenstein, *Verwaltungseinrichtungen und Tarifwesen auf den Eisenbahnen Englands*, Berlin, 1876, 8vo.—Schwabe, *Das Englische Eisenbahnwesen*, Berlin, 1871, 8vo; and *Neue Folge*, Vienna, 1877, 8vo; and Kemmann, *Der Verkehr Londons*, Berlin, 1892, folio. Among French books those of Franqueville, *Du Régime des Travaux Publics en Angleterre*, Paris, 1875, 4 vols., 8vo; and Malézieux, *Les Chemins de Fer Anglais en 1873*, Paris, 1874, 4to. Quite recently a pupil of Professor Cohn, Dr. Moritz Kandt, has published the first part of a history of Australian railways from the economic standpoint, *Australische Eisenbahnpolitik*, Berlin, 1894, 8vo. Of works dealing with special subjects the following should be mentioned. On the whole question of state ownership the report of the Italian commission of 1881

(*Atti della Commissione d'Inchiesta sull' Esercizio delle Ferrovie Italiane*, 7 vols.) is the leading authority. Some portion of it has been translated into French, Paris, 1882, 1 vol. 8vo; while a summary is given in the *Revue des Deux Mondes* for 1st and 15th July 1884. There are three recent English books on the subject, none of them unfortunately of much scientific value—Waring, *State Purchase*, London, 1887; Hole, *National Railways*, London, 1895; and Edwards, *Railway Nationalization*, London, 1898. French railways have been exhaustively treated in the monumental volumes of Picard, *Les Chemins de Fer Français*, Paris, 1884, 6 vols. 8vo. In reference to goods tariffs the works of Ulrich, *Das Eisenbahntarifwesen*, Berlin, 1886, 8vo (published also in French under the title of *Traité Général des Chemins de Fer*), and Launhardt, *Théorie der Tarifbildung der Eisenbahnen*, Berlin, 1890, 8vo, may be cited as of importance. In reference to passenger traffic the works of Ulrich and Perl have already been mentioned. Considère's controversy with Colson on the economic value of light railways also deserves particular notice. And no list can omit mention of Picard's great *Traité des Chemins de Fer*, Paris, 1887, 4 vols. 8vo; or of Roll's exhaustive *Encyklopädie des gesammten Eisenbahnwesens* (7 vols., Vienna, 1890-95), to which may be added, besides the works of Cohn and Sax already cited, an earlier work of Sax, *Oekonomik der Eisenbahnen*, Vienna, 1871. Those who require a fuller bibliography will find the leading works mentioned at the head of the different chapters in Hadley's *Railroad Transportation;* a very long but somewhat inaccurate list of titles in Charpentier et Maury's *Traité Pratique des Chemins de Fer*, Paris, 1894, 3 vols. 8vo, in the main a legal work; while the best bibliography of all is prefixed to the work of Dr. Moritz Kandt on Australian railways which is cited above.]

LIGHT RAILWAYS.—A light railway can only be defined from the technical standpoint as a railway inferior, whether in speed, cost, carrying capacity, or equipment to an ordinary railway. Legally, since the passing of the Light Railways Act 1896, it can be defined as a railway sanctioned not by a special act of parliament but by an order of the Light Railway Commission, approved by the Board of Trade. Continental countries have long classified their railways according to importance and standard of construction and equipment. Prussia has *Hauptbahnen*, *Nebenbahnen*, and *Kleinbahnen*. Elsewhere in Germany the expressions *Secundär*, *Tertiär*, and *Vizinalbahnen* are also used. France distinguishes between *chemins de fer d'intérêt général* and *d'intérêt local*. Belgium calls the latter class *vicinaux*. In all these countries the light lines receive pecuniary assistance from the state, but the state refrains, as far as possible, from direct interference in their management. In Prussia, where the *Hauptbahnen* and *Nebenbahnen* are practically all worked by the state, the *Kleinbahnen* are worked by contractors, sometimes individuals, but more usually companies. In France, where the lines of general interest are controlled by the minister of public works, the lines of local interest are under the control of the prefect of the department in which they are situated. In Belgium the state railway administration has nothing to do with the vicinal lines, which are built and controlled by a national society in which practically the only shareholders are the state, and the provincial and communal authorities, while the actual working is in the hands of local contractors.

Apart from the fact already mentioned that the Light Railways Act of 1896 permits railways to be made and land to be acquired by compulsion for the purpose on the authority of a non-parliamentary tribunal, the chief interest in the Act, from the economic point of view, lies in the fact that it extends to Great Britain the policy which in Ireland has been in force at least since 1883, namely, that the central government and the local authorities should combine to render financial assistance to the construction of light railways. The Act provides that the treasury may assist either with gifts or loans, and that the local authorities of a county, borough, or district may not only lend money to, or subscribe for shares in a Light Railway Company, but may, if they prefer it, construct and work the line themselves. Up to the end of 1897 about ninety schemes involving the construction of over 800 miles of line had been submitted to the light railway commission. In no case has a local authority so far appeared as promoter. Four schemes have been actually passed, seven others have been forwarded by the Commission to the Board of Trade. So far as can be judged at present, light railways are likely to be made in most cases by private enterprise, largely that of the existing railway companies, unaided either by the treasury or the local authorities.

[Thompson, *Catalogue of Books and Articles relating to Light Railways*, London, 1895, 8vo, is a useful bibliography of the subject.] W. M. A.

RAILWAYS (FRENCH). The railway system in France is based on concessions for limited periods, after which the lines revert to the state, which has also a right of purchase on specified conditions. The state contributes to the cost of the lines by works, subventions, or by payment of interest on capital expended by the companies. During the first period of railway enterprise, 1823 to 1832, five perpetual concessions were granted for industrial lines in the centre of France, with animal-traction, for transport of coal and other merchandise. One of these, that from Saint-Etienne to Lyons, was the first to organise in 1832 a passenger service with locomotives. The line from Paris to Saint-Germain, commonly regarded as the pioneer railway in France, was only conceded in 1835 and opened in 1837. It was, however, the first railway having its terminus in the capital. In 1835 the government foresaw the future importance of railways from a national standpoint, and M. Thiers, then minister of commerce and public works, obtained from parliament a credit of 500,000 francs for studies on the conditions and mode of construction of railways in the future. The government had already received applications for concessions of lines from Paris to Rouen and Havre, and from Paris to Lyons and Marseilles. The inquiry was afterwards made to include lines to the Belgian frontier, Strasburg, Orleans, Bordeaux, and Nantes. No one of the projected companies was, however, able to execute the entire work of any of those lines, but a number of concessions were granted, and it was only twenty years later that those and other isolated lines, constructed in the interval, were grouped into the six present great companies, named the Northern—Eastern—Western—Paris, Lyons, and Mediterranean—Orleans—Southern, the terms of all the separate concessions being extended to a uniform period of ninety-nine years. No new perpetual concessions had been accorded since 1833. The general bases adopted for the construction of

railways were, that the ground should be provided by the state, aided by the departments interested; the permanent way, bridges, viaducts, and tunnels be executed by the state, the Companies contributing a fixed sum per mile; the rails, stations, and rolling stock to be at the charge of the companies; the passenger and goods rates to be fixed by the act of concession; the state to share the net profits above a certain dividend after provision was made for the redemption of capital during the period of the concession, at the end of which the lines were to become the property of the state, which would have to take over the rolling stock, plant, stores, etc. at a valuation. If the net profits were insufficient for the dividend and amortisation, the state engaged to advance the difference as a loan at 4 per cent, simple interest, to be repaid before the dividend could be increased, and if not reimbursed at the expiration of the concession, the amount to be deducted from the value of the rolling stock. The companies are bound to perform various services gratuitously for the state, including the transport of mails, troops, prisoners, excise and customs agents, to carry government stores at reduced rates, to permit telegraph wires to run along their lines and buildings, etc. The state also reserved a right of purchase after a period of fifteen years from the opening of the lines. The usual conditions are payment of the cost of the sections that have not been in working for fifteen years, for the rest the state would pay during the remaining years of the concession an annuity equal to the average net receipts of the last seven years, abstraction made of the two most unfavourable years of the period. The rolling stock taken over would have to be paid for within three months. The government have not yet exercised the right of purchase of the systems of any of the great companies, whose concessions only expire between the years 1950 and 1960. Their lines form a total of 20,499 miles of the 25,535 miles open (March 1897). There is, however, a network of 1744 miles of state lines formed by the purchase of a number of unproductive independent lines in 1885, some of which were then incorporated in the Northern, Western, and Orleans systems with which they competed, those companies transferring to the state other lines in exchange. The government had taken over those lines for political motives; their receipts did not cover their working expenses, and their suspension would have caused dissatisfaction among the populations they served. Those state lines cost the government £33,000,000, and the net revenue after more than twenty years of state management is only one-half per cent on the capital, which was borrowed at 4 per cent. The remaining 3292 miles of French railways consist of small independent companies or local lines conceded by the communes or departments. The arrangements between the state and the great companies have been frequently modified by conventions, the most important of which were those of the years 1859 and 1883. By the former the companies undertook to construct a number of secondary lines on the state guaranteeing a net revenue of 4·65 per cent for interest and redemption, but only as a loan to be reimbursed when the new lines realised profits. The latter was concluded when government found itself unable to carry out M. de Freycinet's great scheme put forward in 1878 to construct 6250 miles of railroad in ten years at a cost of £120,000,000. Some of the projected lines, generally in thinly-populated regions, were abandoned, the others were distributed among the great companies, which undertook to execute them progressively on certain conditions. The capital raised by the six companies down to the end of the year 1896 was £59,955,000 by shares, and £474,473,925 by debentures, together £534,428,925, the whole of which will be paid off by drawings by the expiration of the concessions. The value of the lines, exclusive of the part contributed by the state, was estimated in 1892 by Mr. A. Neymarck, a president of the Paris Statistical Society, at £640,000,000. French writers frequently find a consolation for the large amount of the national debt in the prevision that the value of the railways when the leases fall in will be probably sufficient to wipe out the debt completely.

[Alfred Picard, *Les Chemins de Fer Français*, 6 vols.—Duvergier, *Collection des lois et décrets de 1788 à 1897; Les Compagnies des Chemins de Fer*, papers by Mr. Alfred Neymarck read before the Paris Statistical Society (Paris, Guillaumin et Cie.)] T. L.

RAILWAYS, STATE. See RAILWAYS.

RALEGH, SIR WALTER, sometimes RALEIGH (1552-1618). Ralegh's economic writings were part of his work as an active politician. He wrote in jealousy for his native land in view of the political expansion of Spain and the commercial prosperity of the Netherlands. His tracts and his speeches in parliament, as reflecting if not outstripping his age, contribute to its economic history. If, in his *Discourse of War* and his *Discovery of Guiana*, he discusses, as other economists were doing, the capacity for indefinite multiplication in a growing population, and urged colonial enterprise, his chief object, *pace* private ambition, was to secure for England sources of "Indian gold," such as gave Spain the power to initiate and sustain her policy, and to hold which might "at least be a let or impeachment to the quiet course and plentiful trades of the Spanish nation" (*Guiana*). In his *Discourse of Seaports* he urged the construction and preservation of harbours, especially at Dover,

predicting that "the quick uttering of commodities which always followeth by increase of intercourse will cause all the coast and shire to be notably manured and peopled—not with poor, idle, but painful and rich persons." By a harbour at Dover we could both ourselves export Kentish corn and beer, and, by fixing a staple, serve the Channel shipping with commodities. But we were, it seems, too intent on reclaiming land on the Cinque Ports coast. The tract, *Observations touching Trade and Commerce with the Hollander, etc.*, included in Ralegh's works, is by some attributed to John Keymer, a Cambridge vintner. In it the wealth of the Dutch, despite their barren soil, is ascribed to (*a*) their leaving trade relatively free; (*b*) their pushing ability in "opening the gap of traffick"; (*c*) the storing of corn by merchant staplers, the minimum reserve at Amsterdam being 700,000 qrs.; (*d*) their great fishing fleet, we being content to buy of them fish caught off our own coasts. His statistics as to this fleet have been shown to be greatly exaggerated. His *History of the World*, the product of his imprisonment in the Tower (1603-16), reflects his character in greatness of design and imperfection of execution.

In his speeches he advocated liberty of the subject, as against such prescriptive legislation as the Statute of Tillage and the Bill for Sowing Hemp, leaving it to the peasant's discretion to grow corn or not. Nevertheless, when monopolies were attacked, he defended, as warden of the stannaries in Cornwall, his own patent, which prohibited the export of unmelted ore from the duchy, maintaining that by its protection the miner, instead of earning a maximum of "2s. a week, finding himself," now received a fixed wage of 4s. weekly. On one occasion of voting subsidies against Spain, he opposed a motion for taking a census as a basis of assessment on the ground that it would often reveal beggary "where is estimation of wealth," whereby the credit of such persons, "which is now their wealth, would be found nothing worth." On a subsequent similar occasion he held it injustice to assess as far down as "three pound men," when the estates of wealthy men were "not set down in the Queen's Book" at the hundredth part of their wealth. "Call you this *par jugum* when a poor man pays as much as a rich?"

[*Works*, London, 1751,—D'Ewes, *Four Last Parliaments of Queen Elizabeth.*—Edwards, *Life of Ralegh*, 1868.—M'Culloch, *Scarce and Valuable Tracts on Commerce.*] C. A. F.

RAMOS, ENRIQUE. *See* MUÑOZ.

RAMSAY, SIR GEORGE, Bart. (19th century), wrote economic, ethical, and political discourses.

Among these the one of most economic importance is his *Essay on the Distribution of Wealth* (Edin., 1836, 8vo), an attempted supplement, the author tells us, to the works of Ricardo and Mill, whose labours in this field—of profits and the distribution of wealth—were, he thought, incomplete. The author opens the matter by inquiring into the causes which determine what portion of the whole produce of industry shall go to the labourer, that is, the causes determining the rate of wages, which he finds varies directly as the demand, and inversely as the supply. He quotes and advocates the Malthusian doctrine of the advisability of restraining population, refutes the Ricardian theory of the natural price of the commodity labour as that "which is necessary to enable labourers one with another to subsist and perpetuate their race without either increase or diminution." He denies that labour is a commodity, or that, as according to H. F. STORCH, it has a "Prix nécessaire," below which it cannot fall. He argues that the labourer will take any pittance "provided he can get no more."

In ch. iii. Ramsay discusses gross profits, or the circumstances which regulate the share of the master-capitalist.

Ramsay is distinctly on the side of labour as opposed to capital, and points out that where profits arise from an improvement in the productive powers of labour and capital, the commonwealth at large benefits, but where individual profits are due to the fall of wages,—though the individual may obtain an advantage, the nation is injured in its most numerous class (p. 144 *et seq.*). In this chapter on gross profits, Ramsay points out very clearly how the rate of profit falls in consequence of diminished productiveness. He carefully avoids the fallacious doctrine of a general rise in value, and, while agreeing with Ricardo as to the question of profit being entirely one of proportion, he finds fault with him for not taking into calculation that part of produce necessary for replacing fixed capital. He next criticises Ricardo's peculiar use of the term "wages," by which he understands the labourer's proportion of the whole produce. He (p. 181) objects to Adam Smith's explanation of the comparative proportion of profits in Europe; and censures (p. 182) Storch's theory that the master or capitalist, after paying rent and wages —is dependent for his profit on the sale of his commodity.

Ch. vii. deals with rent, which Ramsay insists is in its origin the *effect* of a high price of agricultural produce, not the *cause*. Chs. viii. ix. x. and xi. treat of the division of landed property, with its economic, political, and moral consequences; and ch. xii. is devoted to the subject of the national revenue, which he defines as "that portion of the annual gross produce of any country which either is actually employed in satisfying *immediately* the physical wants of its inhabitants during the course of a year, or which may be so employed without at all impairing the sources of national wealth."

On p. 496 he quotes Malthus's prophecy that the U.S.A. will one day manufacture their own raw produce, and he applies this to our own industries, in which he observes, with a foresight which events have justified, other nations will compete with us. Ramsay's intelligence on the free-trade question was, however, not great, as at

the close of this very chapter we find him deprecating the abolition of the corn laws, insisting that the possible good derived from the cheapness of corn would scarcely be sufficient to "induce the legislature to create so great a present evil."

Other works by Ramsay are:—

A Disquisition on Government, Edin., 1837, 8vo.—*Political Discourses*, Edin., 1838, 8vo.—*An Enquiry into the Principles of Human Happiness and Human Duty*, Lond., 1843, 8vo.—*Instinct and Reason as the First Principles of Human Knowledge*, Lond., 1862, 8vo. A. L.

RAPER, MATTHEW, elected F.R.S. in 1754, his name disappears from their lists in 1778.

He made four contributions to the *Philosophical Transactions*, the last of which—*An enquiry into the value of Greek and Roman Money*, 1771, republished 1772, and by the Political Economy Club with preface by M'Culloch in *A Select Collection of Scarce and Valuable Tracts on Money*, 1856—was the most important English contribution to the subject between Greaves, 1647, and Hussey, 1836. The latter's *Essay*, pp. 8, 68, 221, praised it none too highly, but most of its results have been superseded by the discoveries of inscriptions, etc., referred to by Böckh, *Metrologische Untersuchungen*, 1838; Brandis, *Das Münz- Mass- und Gewichtswesen in Vorderasien*, 1866; Schillbach, *Beitrag zur griechischen Gewichtskunde*, 1877, and Mommsen's, Lenormant's, and Hultsch's well-known works. His error as to the libra was only ·633 per cent.

[Sir W. Smith, *Dictionary of Greek and Roman Antiquities*, 1891, sub tit. "Pondera."] J. D. R.

RAPIDITY OF CIRCULATION. This phrase is used in dealing with the theory of money to express the fact that in a community in which the use of money is habitual, in order to effect the number of exchanges of commodities required by the community, each piece of money passes from hand to hand many times, representing a fresh purchase on each occasion. Though it is not essential to contemplate this fact in relation to a given period of time, yet as our habit in considering commercial transactions is to look to their annual amount, the idea embodied in the phrase, "rapidity of circulation," becomes clearer if it be stated that the rapidity of circulation of a piece of money is the average number of times it changes hands in the course of the year. MILL's insistence that "time is not the thing to be considered," *Princ.*, bk. iii. ch. viii. § 3, only made the idea more difficult to grasp. LOCKE certainly saw the real office of "quickness of circulation," and the basis of the true theory (see LOCKE ON CURRENCY). The significance of that idea gradually became apparent through the investigation into the quantity of money required by a community. The old opinion was that the aggregate amount of the money in a country at any time was equal to the aggregate of all commodities then and there for sale. Sir William PETTY, in 1682, understood the subject better than many who followed him. BERKELEY, in 1735, tersely put the truth, that "a sixpence twice paid is as good as a shilling." BANDINI, in 1737 (*Discorso Economico*, pp. 41 *et seq.*), saw the same truth. It was not till much later that the effect of the circulation of money was thoroughly comprehended. SISMONDI in 1820, *Nouveaux Principes*, v. 11, and elsewhere, wrote that "the amount of medium in circulation in a state must be equal to the sum of the payments made in it in a given time, divided by the sum of the times the former has on an average changed owners." It became generally understood that a piece of money did its work several times over for different persons in respect of different purchases, and most writers by 1850 had definitely adopted the phrase under discussion. ROSCHER, for instance, in dealing with the amount of money needed in a community, makes it depend on (1) the number and extent of transactions; (2) the rapidity of circulation; and adds that one coin, circulating ten times a year, is equal to ten coins of the same denomination which go from hand to hand once a year. J. S. MILL discusses rapidity of circulation from the point of view of the purchasing power of money.

The practical question is whether any such estimate can be made of the work done by each piece of money, in any given community, as to indicate the quantity of money required by the community. Knowing what the phrase connotes, is it possible to formulate its effect for practical use? Such an inquiry is hopeless. The factors to be dealt with are so numerous, ill-defined, and illusive, that it is impossible to evolve a formula which the mind can conveniently carry. The different denominations of coins, the different habits of mind of the persons handling the coins, the different commodities to be exchanged—all affect the inquiry. Consequently the supply of the circulating medium to a community remains purely empirical; and, so far as theory goes, we have never got much beyond Sir William Petty's suggestion, two centuries ago, that the money required in circulation in England was equal to half the amount of the ground rents (paid half-yearly) + $\frac{1}{2}$ the amount of the house rents (paid quarterly) + $\frac{1}{52}$ part of the wages (paid weekly) + $\frac{1}{4}$ the value of all exported commodities.

Such considerations as the effect of hoarding, the absorption of coin as ornament on the person, as happens with the coolie women of India, the greater rapidity of circulation in cities than in thinly-populated areas, are of no real assistance in determining the actual numbers of the purchases made by each coin, or even of each sovereign's worth of coin in circulation. So far as their extent is known they furnish an element in the adjustment of the amount

of coin to be issued annually in any given community.

The development of banking facilities and clearing-house arrangements has in modern times made the actual working of the circulation much clearer.

[Roscher's *Political Economy* (Lalor's translation), § cxxiii., vol. i. pp. 367-69, and note on p. 368. —Sismondi, *Nouveaux Principes*, bk. v. ch. ii.— J. S. Mill's *Principles*, bk. iii. ch. viii. § 3; ch. ix. § 3.—Sidgwick's *Principles*, p. 238.] C. A. H.

RAPP, GEORGE (1770-1847), founder of the sect known as *Economites*, was a native of Würtemberg, where he made his first effort to bring back society to the principles of early Christianity. Failing in this, he and his followers emigrated in 1803 to western Pennsylvania. A settlement called Harmony was established, and Rapp's followers were known as Harmonites. In 1815 the community removed to Indiana and founded New Harmony. Again failure attended these religious socialists, and the settlement was sold to Robert OWEN (*q.v.*) in 1824. An experimental community was formed on Owen's system, but this also failed in the course of three years. Meanwhile Rapp and his disciples returned to Pennsylvania, and built a new settlement, on the right bank of the Ohio, called Economy, where they employed themselves in farming. Rapp's leading doctrine was the speedy second coming of Christ; to prepare for this his object was to amass as much wealth as possible. He enjoined the most rigid economy both on himself and his followers. They laboured strenuously, practised celibacy, and had all things in common. In course of time the community became extremely wealthy, possessing large farms, dairies, and vineyards, and it was reported to hold many millions of dollars' worth of railway and bank shares. When Rapp died in 1847 the community numbered several hundreds, but it gradually dwindled away until there were not a hundred survivors at the United States census of 1890.

[*Cyclopædia of American Biography.—Chambers's Encyclopædia.*—Nordhoff, C., *Communistic Societies of the U.S.*, 1875, pp. 63 *seq.*] G. B. S.

RATE. A rate is defined in Sweet's *Law Dictionary* as "a sum assessed or made payable by a body having local jurisdiction over the district in which the person on whom the rate is assessed dwells or has property." A rate may thus be said to differ from a tax in being a local or municipal, not a national or imperial, imposition. It is always levied directly, and usually on immovable property. What public expenses should be met out of rates rather than out of taxes will depend in the first instance on the apportionment of functions between central and local authorities. Thus in England the relief of the poor has been charged upon the rates. But the expenses of a branch of administration which has been left to local authorities—as primary education, may be defrayed in whole or in part from the national treasury. Such grants in aid of the rates have been growing in number and importance of late years. They are open to the objection that they tend to relax the economy of local authorities. The term "rate" is commonly but inaccurately applied to the charges made by gas and water companies for the commodities which they supply.

[Castle, *On Rating.*—Palgrave, *Local Taxation; —Town Holdings Committee*, 1886-88.—Goschen, *Reports and Speeches on Local Taxation.*]

F. C. M.

RATE; RATES, INCIDENCE OF. Rate means proportion, being levied in proportion to the value of the property subject to the rate. Thus customs used to be regulated by a royal (1556) or statutory (1660, 1724) "book of rates," and modern statutes still sometimes refer to customs as "duties and rates." Nowadays, however, rates are almost invariably opposed to duties and taxes; and the line of cleavage is rightly defined by Mr. Cannan as follows: when the taxing authority requires a lump sum payable by contributions in certain proportions, this is a rate; when it requires sums from certain persons or on certain occasions, this is a direct or indirect tax. From 1334 and onwards FIFTEENTHS AND TENTHS were in this sense rates; so are modern French "contributions foncières et mobilières." But there is this difference between England and France: in France local are added to central "contributions," or else consist of OCTROI; in England all local imposts are rates—no central imposts are rates except the LAND TAX, which is raised by "a pound rate." Hence, popular language dubs all imposts by a non-sovereign body, rates, and all imposts by a sovereign, or like a colony, quasi-sovereign body, taxes, customs or excise. The earliest local rates were the "scot" (see SCOT AND LOT), "townley," or "constable's tax," payable by members of a township "juxta facultates," and often including the hundred and county rates. Side by side with this was the church parish rate virtually abolished in 1868. But a new system grew up of imposing separate rates for separate objects—such as sewers (1427), bridges (1530), and gaols (1531)—which culminated in the poor-rate of 1572, 1598 (Thorold Rogers, *Hist. of Agr. and Prices*, vi. 101), and 1601; and the poor-rate soon became the pattern after which every local impost was remodelled. The modern history of local rating begins therefore in 1601.

Modern rates, such as (1) the general, and (2) special county rates, in which the hundred gaol-fees, shirehalls, asylums, and, since 1888, county police rates are more or less completely merged; (3) the borough, and (4) borough watch rates; (5) general, and (6) special

district-rates of (*a*) town councils, urban improvement commissioners, or in London county vestries, and (*b*) rural district councils under the Public Health Acts, etc., of this reign; (7) general, and (8) special parish council rates; (9) sewers, lighting, police, and general rates in London county; such (10) highway, (11) lighting and watching, (12) baths, and (13) library, (14) burial board, and (15) education rates as are not swallowed up in the preceding rates, are all levied according to the annual value of property rateable to the poor rate, either in the same way as, or as part of, the poor rate. Not that there is uniformity. The county and borough, but not London county, rates may be based on independent valuations by their respective authorities — an absurd waste. Urban district rates are usually "made" by separate officers, other rates being "made" by the overseers. The main burden of special expenses is wisely cast on those who profit thereby; and there are anomalous exemptions from urban general district rates. Occupiers deduct from their rent three-fourths of private improvement rates (a special species of district special rate), and poor people often "compound," *i.e.* the owners and not the occupiers pay rates; and these cases are differently defined in different acts. Many towns have private acts. Again, the distinctions of rate and rate are artificial. Highway rates have been split up, and part has become county and part district rates. District rates belong in the country to the poor rate, but are usually separate in boroughs, and sometimes the poor rate swallows up the borough rate, which, again, swallows up sometimes the watch rate, and sometimes the general district rate. Finally, there survive (16) sewers rates (1531) (1861), (17) general sewers tax, (18) drainage rates, and (19) a few highway rates leviable by way-wardens which have nothing to do with poor-law machinery.

Under the act of 1601 poor rates were levied (1) by overseers, including churchwardens; (2) on every parochial inhabitant, and (3) occupier of (4) lands, houses, tithes, (saleable) underwoods, and (coal) mines; (5) according to the ability of the parish. We will take these points in order: (1) In 1894 in rural parishes churchwardens were deprived of this office, and the other overseers, formerly nominees of the magistrates, were made elective, and the local government board may extend similar provisions to towns. Up to 1834 the overseers, since then the guardians, decide how much must be raised for the coming year. The overseers prepare the valuation list, which, since 1862, is corrected and countersigned by a committee of guardians called "The Union Assessment Committee," and then becomes official. They then "make" the rate, *i.e.* state that "A. B. being assessed at so much, must pay so much in the £"; and two magistrates "allow" the rate—a mere form. Since 1744 the rate must be published; since 1836 a prescribed form is followed. An appeal lies to special petty and to quarter sessions. Non-payment entails a magisterial distress-warrant against chattels, or, if there are no chattels, three months' imprisonment. Paid collectors have during this century been appointed by the guardians; formerly the overseers were collectors. (2) and (3) The local unit is the parish, but the township is largely substituted in the north under an act of 1662. Unlike most sewers and drainage rates, and the private improvement rate, the poor rate—though classed by economists as a land tax (Sir R. Giffen, *Essays in Finance*, ser. i. p. 252)—is personal, and does not charge land. (2) In the south and west of England "local, visible, and profitable" personalty was assessed to the poor rate, a practice which the courts finally sanctioned (1795). Here, too, the worst abuses of poor relief began and culminated (1795). About this time the old staplers and clothiers migrated from the west of England to Yorkshire. These three facts were probably connected; the poor law commissioners ascribed the third to the first two; but Massie mentions the high price of coal and necessaries, Tucker (*Instructions for Travellers*, 1757, p. 25) and the Select Committee on Wool (1806) mention the bad organisation of industry in the west of England as the prime cause, and there were earlier migrations to Ireland and elsewhere. Since 1840 personalty may not be assessed; but the practice still varies as to machinery (Hansard, *Debates*, 1887; see Index *s.v.* "Rating of Machinery"). Poor-law rating according to "means and substance" prevailed in Scotland from 1579 to 1861; and shopkeepers often become overseers in order to pry into their rivals' stock-in-trade. The highway rates which from 1654 to 1767 affected personalty were seldom levied. (3) "Occupier" excludes lodgers, servants and dwellers in empty houses, but applies to flats, colleges, charities, and hospitals. If the rent is less than £8, or, in London county, £20, the "Compound Householder" system prevails. In Scotland rates are generally thrown half on owners, half on occupiers; and in Ireland a similar system exists with regard to the poor rate, and agricultural and pastoral holdings. Advocates of this plan are referred to by Blunden (ch. vii.). (4) The words "saleable" and "coal" were struck out in 1874, and sporting rights were added. (5) There was no one plan of estimating the payer's ability until 1836. Since then the overseers (i) estimate the rent which the premises would fetch if let to a yearly tenant free of tithes and tenants' rates and taxes; (ii) and then deduct repairs, insurance, and renewal expenses—(i) is called

"gross estimated rental," (ii) "rateable value": (i) is usually about 6 per cent less than the corresponding income-tax assessments, and (ii) usually knocks off another 15 per cent (see Blunden, p. 126). The following figures are from Mr. Fowler's *Report*. Expenditure of local authorities, excluding loan expenditure, was met (in round figures) thus:

	1868	1890-91
Urban rates . .	3,027,000	9,583,000
London rates . .	3,703,000	7,930,000
Rural rates . .	1,416,000	2,109,000
Mixed rates . .	8,358,000	8,196,000
Total . . .	16,504,000	27,818,000
Treasury subventions .	951,000	7,186,000
Tolls, rents, sales, etc.	7,289,000	15,658,000
Total . . .	24,744,000	50,662,000

And local debts had risen from £92,820,100 (1875) to £201,215,458 (£183,915,189 being purely, £13,393,410 partly urban). Rates per £ were 3s. 10¾d. (1817), 3s. 8d. (1827), 2s. 7d. (1841), 3s. 4d. (1868), 3s. 8d. (1891).

The Agricultural Rates Act 1896, and Elementary Education Act 1897, are estimated to make the Treasury Subventions, 1897-98, £8,979,000 (see BETTERMENT).

[There are three classical *Reports on Local Taxation*, by the Poor Law Commissioners (1843), Mr. Goschen (1870), and Sir H. H. Fowler (1893) (who reprints the Report of 1870). See also G. H. Blunden, *Local Taxation and Finance* (1895).—E. Cannan, *History of Local Rates in England* (1896).—Cobden Club Essays (ed. J. H. Probyn), *Local Government and Taxation*, 2nd ed. 1882.—H. R. Gneist, *History of the English Constitution*, trans. by Ashworth (1891).—J. J. O'Meara, *Municipal Taxation at Home and Abroad* (1894).—R. H. Inglis Palgrave, *Local Taxation of Great Britain and Ireland* (1871).—Reports of *Select Committee on Town Holdings*, 1889, vol. xv., Index *s.v.* "Rate," 1892, vol. xviii.—R. S. Wright and H. Hobhouse, *Outline of Local Government and Local Taxation in England and Wales* (1894).] J. D. R.

RATE IN AID. Previous to the year 1834 every parish had to provide for the relief of its own poor. The rate in aid was a rate levied upon neighbouring parishes to assist a parish which was unequal to this burthen. The principle of a rate in aid was first introduced by an act of 1555 (2 & 3 P. and M. c. 5), but only with reference to parishes in the same city or corporate town. An act of 1597 (39 Eliz. c. 3), which amended and consolidated earlier statutes for the relief of the poor, enabled two or more justices of the peace dwelling in or near a parish alleged to be unable to maintain its poor, if satisfied of that inability, to lay a rate in aid upon other parishes in the same hundred, or upon individuals in such parishes. If the hundred were judged unequal to assisting the parishes which could not relieve their poor, the quarter-sessions might levy a rate in aid upon any other parishes within the county. The celebrated act of 1601 (43 Eliz. c. 2) repealed the act of 1597, but re-enacted these provisions. Since the passing of the Poor Law Amendment Act 1834, the formation of unions of parishes, and the establishment of a common poor fund for London, has rendered the levying of rates in aid unnecessary.

[Cannan, *History of Local Rates in England.*] F. C. M.

RATI. See RUPEE.

RATING OF THE GUINEA. See GUINEA, INTRODUCTION AND RATING OF.

RATIO BETWEEN GOLD AND SILVER. See GOLD; SILVER; PRECIOUS METALS, DISCOVERIES OF.

RATIO OF EXCHANGE. See EXCHANGE, FOREIGN: also MINT PAR OF EXCHANGE; GOLD POINTS IN FOREIGN EXCHANGES.

RAU, KARL HEINRICH (1792-1870), born at Erlangen, studied in the university of that city, in which he became, 1816, an extraordinary, and, 1818, ordinary professor. In 1822 he accepted a call to the chair of political economy at Heidelberg, where in 1845 he was made a privy councillor. He was a member of the first Baden chamber, and was elected to the Frankfort parliament in 1848. He died at Heidelberg.

Rau was a follower of Adam Smith. At first, influenced by the older German economists, with whose writings he was thoroughly acquainted, he showed mercantilist tendencies and a leaning towards a protectionist policy, as well as an inclination in favour of a revived gild-system. But gradually, as he himself tells us, larger experience led him to change many of his opinions; he entered more and more fully into the views of Smith, and adopted the principle of freedom of trade and manufactures, though not with the rigour of the English school. He studied also the later English economists, and accepted the so-called Ricardian theory of rent. Early in life Rau inclined to the historical method, but he afterwards conceived the mistaken notion that that method dealt only with the past and did not concern itself with the improvement of existing conditions; and his interests became too exclusively practical.

Rau is not remarkable for precision of thought or strict accuracy of expression; his character is "erudite thoroughness." He interweaves with his abstract discussions many geographical and statistical illustrations. His writings are specially adapted for the use of public officials and members of the legislature, being very full on the application of theoretical principles to concrete cases. He was the economic teacher of the well-governed German middle states from 1815 to 1848, his doctrines having taken root among the liberal and enlightened civil servants of those states.

Among his most notable economic publications may be mentioned his early prize essay, *Über das*

Zunftwesen, 1815; *Ansichten der Volkswirthschaft*, 1821; *Malthus und Say*, 1821; and, above all, his *Lehrbuch der politischen Oekonomie* (1826-1837), which has appeared in many editions, and has been remodelled by Adolf Wagner and Erwin Nasse, the former doing much the greater portion of this work. Rau also gave in 1819 a free, but very good, translation of Storch's *Cours d'Économie politique*. He established in 1835 a periodical entitled *Archiv der politischen Oekonomie und Polizeiwissenschaft*, and conducted it, at first alone, afterwards in conjunction with Hanssen. A very large number of reviews and other papers by Rau appeared in the *Archiv*.

[Leser in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften*.—Roscher, *Gesch. der N. O.*, p. 847.] J. K. I.

RAUDOT, CLAUDE MARIE (1801-1879), born at Saulieu, Côte d'Or, died at Pontaubert, Yonne. He had been appointed a magistrate before the Revolution of 1830, but being a legitimist by conviction, he resigned in that year.

During the reign of Louis Philippe, Raudot published *La France avant la Révolution*, 8vo, 1st ed. 1841, 2nd ed. 1847), a faithful summary of the state of France when the *États-généraux* were convoked.

Elected a representative of the people in November 1848, Raudot was re-elected to the legislative assembly in May 1849.

The *coup d'état* caused him to return to private life. While he was in parliament he had published two works, which, like the first he wrote, were successful. The first of these was *De la décadence de la France* (4th édition, 1850), a sensational title which should not be taken literally. He desired to make it clear that France was strangled by the laws, but that these hindrances could be easily removed, and hence had made less progress than other countries. Administrative centralisation was the principal hindrance, and Raudot eloquently described the injuries it inflicted on France. His second work, the sequel and in some respects the complement of the first, *De la grandeur possible de la France*, 8vo, 1851, discusses, one by one, each of the public offices, and shows the reforms most required in each. Amongst these reforms decentralisation takes the first place. Even in the present day it would be well for the governing body of France, legislators and ministers alike, to study this work, one of great ability and much conscientious research. During the second empire Raudot published *Napoleon Ier peint par lui-même* (18mo, 1865). This condenses the first fifteen volumes of the conversation and correspondence, official and otherwise, of Napoleon I., collected, classified, and republished by order of Napoleon III., and contains revelations startlingly suggestive of the baseness of the causes of the wars, particularly the wars of conquest so disastrous to France.

This work may thus strengthen the feeling of security among nations. A. C. f.

RAYNAL, GUILLAUME THOMAS FRANÇOIS (1713-1796). After having studied at the Jesuit College, he became a Jesuit himself and a parish priest in Paris, until he left the church and began life anew as a man of letters.

His first works, all of them historical, are mere compilations and quite forgotten, but his *Histoire philosophique et politique des établissements et du commerce des Européens dans les deux Indes* (Geneva, 4 vols. 1770, 10 vols. 1781—first ed., without the author's name) made a great stir at the date of its publication, and was sentenced by the Paris parliament to be burnt by the public executioner. It is full of furious attacks on religion and existing institutions, written in a pompous and declamatory style, and provoked animosity from all quarters. Grimm stated that one-third of the book was the work of Diderot. Turgot was shocked by "its incoherence and by seeing the most opposite paradoxes defended with the same heat, the same eloquence, the same fanaticism. . . . He, the author, is more learned and has more natural sensibility and eloquence than HELVETIUS, but he is quite as desultory in his ideas, and as much a stranger to the true nature of mankind" (*Œuvres*, ii. p. 801). A passage from a letter of Horace Walpole to the Countess of Aylesbury (Dec. 20, 1772) conveys a lively picture of the contents of the book. "It tells one everything in the world: how to make conquests, invasions, blunders, settlements, bankruptcies, fortunes, etc.; tells you the natural and historical history of all nations; talks commerce, navigation, tea, coffee, china, mines, salt, spices; of the Portuguese, English, French, Dutch, Danes, Spaniards, Arabs, caravans, Persian, Indians; of Louis XIV. and the king of Prussia; of La Bourdonnais, Dupleix, and Admiral Saunders; of rice, and dancing women; of camels, ginghams, and muslins; of millions of millions of livres, pounds, rupees, and cowries; of iron cables and Circassian women; of LAW and the Mississippi; and against all governments and religions" (*Walpole's Letters*, vol. v. p. 421, edit. Cunningham). Raynal expressly boasts that he has consulted all available sources, and in his overbearing way exclaims at the outset: "I have questioned the living . . . and the dead . . . in whatever language they have written. . . . If a man living at the pole or under the line, and capable of informing me on some important point, had been pointed out to me, I would have repaired to the pole or the line and challenged him to tell me the truth" (vol. i. p. 3, edit. 1781). In fact he inserted whole pages taken from previous writers or histories without acknowledging his obligations.

Putting on one side literary faults and extravagant attacks on religion, this treatise *de omni re scibili*, had it been cut down to one-half of its size, would not have been a bad historical work; a good deal of sound criticism on colonial policy is to be found in its pages. Raynal dissents from the prevailing mania of pseudo-philosophical admiration for the Chinese, and most of the historical summaries are put in a plain and sensible way. As an economist, though he does not commit himself to absolute doctrines, he still shows a predilection for agriculture and industry, and ascribes the decay of Portugal to its neglect of the cultivation of its territory: "Enlightened

men frankly regretted the neglect of the real sources of wealth, as the tillage of the soil, in order to run after those glittering objects, the precious metals" (vol. i. p. 241). This passage shows that he did not belong to the older school of mercantilists. E. Ca.

READ, Samuel—

is best known by his *Political Economy, An Inquiry into the natural grounds of right to Vendible Property or wealth*, published at Edinburgh for the author, 1829, the preface being dated from Roslin, October 1829. He had before written (1) *On Money and the Bank Restriction Laws* (May 1816). (2) *The Problem solved in the explication of a Plan of a safe, steady, and secure Government Paper Currency and Legal Tender*, Edinburgh, 1818. (3) In his *Exposure of Certain Plagiarisms of J. R. M'Culloch, Esq., author of two Essays on reduction of the interest of the National Debt, committed in the last published of those essays, the Scotsman newspaper and Edinburgh Review*, In recto decus, Edinburgh, 1819, he complained that M'Culloch in the second of his two essays on the national debt (Nov. 1816) borrowed without acknowledgment from the above tract on *Money* (*a*) the general rule of adjustment, namely, that creditors accept the exact weight of *bullion* which would have been bought at the time of contract with the currency advanced then by them to the borrowers. In M'Culloch's earlier essay the standard was not bullion but corn. (*b*) He borrowed the application to the stockholders, practically reducing the interest on the national debt. Read, in any case, was not followed by M'Culloch in applying the principle to all debts, private as well as public. He had written also on population (see below).

"Political economy," he writes in the preface to his *Inquiry*, "has been hitherto designated as the science which treats of the production and distribution of wealth, and it has been totally overlooked that this includes the demonstration of the right to wealth. It is here, therefore, for the first time, treated as an investigation concerning the right to wealth or property." "Its chief object (Introduction, p. xviii) is to demonstrate what is just or unjust in all the most important and difficult points relating to the production and distribution of property or wealth; property, *i.e.* vendible or transferable property being the chief, if not the only subject of the virtue of justice;—political economy might indeed be called the science of political justice." But if we expect from this beginning a treatise on the lines of the *Inquiry concerning Political Justice* by W. Godwin, we shall be disappointed. Read's book is mainly economical, and to a large extent orthodox. Godwin's view of inherited property is expressly rejected (pp. 121, 122) on the ground that labour by itself is far from producing all the wealth in existence; accumulated capital plays a part that cannot be ignored (p. 124). Read deals severely with *Labour Defended against the Claims of Capital* (anon., 1825) (pp. 125-132). He has little but praise for Adam Smith, but no praise for Malthus, against whom he had written a pamphlet, *General Statement of an Argument on the Subject of Population in Answer to Mr. Malthus's Theory* (Edinburgh, 1821). The principle of population seems to him to be in no other sense the cause of poverty and misery among the lower classes of the people "than as that principle is the cause of their existence" (*Inquiry*, p. 158, cp. 158-170, and 55 n.).

Read follows Adam Smith in considering "labour the only certain measure of value" as well as the chief though not the only "ingredient in the cost of production" (p. 199). He attaches importance to the idea of an "absolute value," though this is, he admits, less an economic than a philosophic idea; it is "happiness itself or pleasurable sensation" (p. 229). He considers that the desire of bettering our own condition is resolvable into the preference of pleasure to pain (p. 146). The utilitarian standard is to be continually borne in mind (p. 229, cp. *e.g.* p. 362). The fact of appropriation ought also to be better remembered than it usually is; Read deduces from it that rent enters into price (p. 243), and he justifies by it his use of "vendible property" for wealth (pp. 19-21). He is certainly no assailant of the received rights of property; and thinks to place them more surely beyond attack by a poor-law system that would allow 4s. a week to the aged and infirm, and 3s. to the unemployed, in addition to the usual forms of relief (p. 361). Like recent writers, he considers that, since the land is no longer open to the labourer, the labourer out of employment has a very special claim on society (pp. 364-375). "The right of the poor to support, and the right of the rich to engross and accumulate, are correlative and reciprocal privileges, the former being the condition on which the latter is enjoyed" (p. 375).

Finally, in regard to taxation, Read's view is that there is a point up to which it acts as a wholesome stimulus to industry (p. 388), but the limit is easily overstepped, and was overstepped in the late war. "Those who are old enough to remember the state of the country and of the labouring classes before the commencement of the late war, can bear ample testimony to the fact that their hours of labour were not so long, nor their exertions so arduous as they became towards the conclusion of it, and that they gradually increased with the increase of the taxes" (p. 390 n.).

Read is by no means the worst of the minor writers on political economy who abounded in the first half of the 19th century; and it is to be regretted that the dictionaries of English biography give no information about him. J. B.

REAL. From 1497 to 1772 the principal Spanish silver coin was the piece-of-eight reals, which subsequently to the latter date became known as the dollar (see Dollar, History of; Dollar, Hard).

In 1642 a "real of new plate," intended solely for use in Spain, and known as a "provincial" coin, was introduced. The circulation of these pieces, however, was not restricted to the provinces of Spain, but the coins were largely exported to America.

The weight and fineness of these reals are given by Chalmers in his *History of Currency in the British Colonies*, as follows:—

Date.	Weight.	Fineness.
	grains.	
1642	42·59	931
1686-1707	42·2	931
1707	47·3	833·3

F. E. A.

REAL ESTATE. See PROPERTY, Sec. vi., Real and Personal Estate; and REAL PROPERTY.

REAL PROPERTY is the property the beneficial interest of which in the case of intestacy in the United Kingdom passes to one person called the heir-at-law, who, if the deceased owner leaves any sons, is always the eldest son. It is distinguished from "personal property," which is divided among the next-of-kin (see INTESTACY). Real property consists of freehold estates in land (see ESTATE; FREEHOLD), and certain rights called incorporeal hereditaments (see INCORPOREAL PROPERTY), *e.g.* advowsons. Leasehold interests in land are personal estate, as well as all movable property, stocks, shares, book-debts, etc. The *legal* interest in real property of persons dying after the 1st January 1898, by virtue of the Land Transfer Act 1897, passes in the same way as personal property. E. S.

REALISE. To convert a security into cash; also, in closing a bargain upon the stock exchange, to convert into a reality a profit or loss which is otherwise contingent upon quotations remaining unchanged. R. W. B.

REBATE. An abatement allowed in retiring a bill of exchange before maturity, calculated upon the number of days the bill has yet to run, and at the prevailing rate of interest, or at a rate decided by the custom of a special trade or place. In London it is now usually taken at one half per cent above the bankers' deposit rates.

Also, in bankers' book-keeping, an allowance in a balance-sheet for discount received upon bills not yet matured. In practice, rebate may be calculated either at a fixed or arbitrary rate, at the average discount rate for the last three or six months, at the rate of the day upon which the closing entries are made, or at the actual rate at which each bill was discounted (see also DISCOUNT). R. W. B.

RECEIPT. A written acknowledgment of the payment of money or of the delivery of goods. In the case of a ready-money transaction a receipt does not require a stamp, but where credit has been given, any written acknowledgment of the receipt of money or of a bill of exchange, or of a cheque or a promissory note or satisfaction of a debt, where the money, bill of exchange, cheque, note, or debt is £2 and upwards, requires an adhesive stamp of 1d. The obligation to provide the stamp is thrown on the person to whom the payment is made.

[Alpe's *Digest of the Stamp Acts*, 1896.]

J. E. C. M.

RECEIVER. Where it is desirable that property in dispute should be protected, or that income should be appropriated to satisfy a judgment, the court will appoint a receiver for the purpose. J. E. C. M.

RECEIVING ORDER. The name of the order made on the petition of a creditor or the debtor for the institution of bankruptcy proceedings. Its effect is to put the official receiver in charge of the debtor's property and to stay proceedings pending against the debtor (see BANKRUPTCY LAW AND ADMINISTRATION). E. S.

RECIPROCITY, as used by writers on trade, denotes a special class of trading arrangement between nations, which is limited by the grant of special advantages on one side in consideration of equal advantages given by the other. At one time the use of the term was so extended as to embrace a regular system of trade; at the present day it rather imports a principle which has its effect in special cases. The term first came into use in the early years of the century, in connection with the relaxation of the navigation laws of the United Kingdom, in return for similar relaxation of restrictions on shipping on the part of a foreign nation. The first application of this principle was in the treaty between Great Britain and the United States in 1815, which contains a clause to the effect that the ships of each of the contracting parties, on coming into the ports of the other party, should not be liable to any greater charges than the ships of that other contracting party were subjected to in the ports of the first. The action of Prussia in 1822 forced the hand of the United Kingdom *into* extending the same principle to our dealings with European countries. On 2nd April 1824, a convention was made with Prussia in which the principle of a reciprocal concession in regard to duties on tonnage was embodied (Hertslet's *Treaties*, iii. p. 313). The matter was taken up by HUSKISSON (*q.v.*), particularly from the point of view of the shipping interest, and the plan was then applied by treaty to the new South American states which had just declared their independence of Spain. Conventions during the immediately ensuing years were made with Buenos Ayres (2nd February 1825), Colombia (18th April 1825), France (26th January 1826), and Sweden (18th March 1826) (see Hertslet's *Treaties*, vol. iii.), and at the same time the principle was extended so as to apply to duties on imports.

This extension of the system to import duties suggested a new idea to certain economic writers, who conceived that the correct theory of international trade was to base it on reciprocal concessions, so that no nation would admit the goods of another on any given terms unless that other nation treated its commodities in an equally favourable manner. This is the idea

specially attached to the term "reciprocity" about the middle of this century, and its corollary was that retaliatory duties should be levied upon all countries imposing hostile tariffs on the national products. It found several adherents of note, and its claims are not unfrequently advocated in the pamphlet literature of 1840-50, but it made no headway in the face of the free-trade movement, and the act 12 & 13 Vict. c. 29, which embodied the principle of extending favours to foreign powers where those powers gave favourable treatment to British goods, carefully avoided any suggestion that such treatment must be a condition precedent to the grant of the favours.

The basis of the reciprocity theory is the idea that where two countries trade with each other to repeal an import duty in one while a high duty is kept up in the other is to make the first country, *pro tanto*, tributary to the second. It is put concisely in a letter from Col. TORRENS to Sir Robert PEEL.

"By a failure to oppose hostile tariffs with retaliatory duties we confer on foreign powers a bonus on the continuance of their restrictive systems, while by maintenance of retaliatory duties against countries refusing to receive British goods on terms of reciprocity we shall render it the palpable and unmistakable interest of foreign states to act upon the true principles of free trade" (Torrens' *Commercial and Colonial Policy*, 1844, *ad finem*, pp. 26, 27 of the "Letter" to Sir R. Peel).

The principle advocated by Torrens is much the same as that of late years current under the name of FAIR TRADE.

The term "reciprocity" survives in the commercial legislation and treaty arrangements of the United States of America. The "reciprocity treaty" has long been a favourite instrument with that republic. Under such a treaty one nation grants the other special reductions of import duties in return for equivalent reductions by the other country (see RECIPROCITY IN U.S.). It may be said, therefore, that the treaty policy of the United States has for some years been based upon a principle of reciprocal concessions.

This policy is nearly akin to the interpretation of the most favoured nation clause adopted by the United States government (see Parl. Paper C 4340, 1885). Under this interpretation, where any nation as a result of bargaining receives concessions in the ports of the United States, the States decline to give the benefit of the clause to any other nation which has not made specific concessions equivalent to those made by the nation to whom they grant their favours.

[Smith, *Wealth of Nations*, M'Culloch ed. 1870, note xii. p. 538.—Torrens, *Budget of Commercial and Colonial Policy*, London, 1844, pp. 48-49, 61, 242.—Huskisson's *Speeches*. See also Sir Louis Mallet, "Reciprocity" in *Cobden Club Papers*, p. 6. "The imposition of a duty by one country on the produce or manufactures of another only affects the transactions by rendering it less profitable both to the seller and to the buyer; the variations of supply and demand will cause the incidence of the tax to fall upon the seller and the buyer, the producer and the consumer, in varying degree; but, in the long run, it will be equally shared between them." Also bibliography, art. on RETALIATION.] C. A. H.

RECIPROCITY IN THE UNITED STATES.

Commercial reciprocity as a distinct system has had an uncertain existence in the United States. Upon the establishment of the present form of government in 1789, American legislation was in harmony with that of the rest of the world as to protection to home commercial interests. Higher duties were placed on goods imported in foreign ships. Treaties of 1794 and 1815 tended to liberalise commercial arrangements and to remove certain special restrictions. Between 1845 and 1854 there was considerable discussion as to reciprocal free trade between Canada and the United States, and in the latter year a treaty of reciprocity was ratified by which the British-American sea fisheries were open to citizens of the United States and free import of certain raw and some manufactured commodities was given to Canada. This was terminated in 1866. The advantage of this to the interests of the United States has been much questioned, as for example by James G. Blaine in *Twenty Years of Congress*, vol. ii. p. 620. An attempt was made to renew this treaty in the treaty of Washington of 1871, but was unsuccessful (for detailed references to this question see E. Schuyler's *American Diplomacy*, New York, 1886, p. 430).

In 1844 a treaty was signed with the ZOLLVEREIN providing for certain reciprocity favours, but was rejected by the United States senate on the ground that this was an invasion of legislative rights by the executive. Reciprocity treaties with Mexico in 1860 and 1883 also failed of ratification by the senate. A reciprocity treaty with the Hawaiian Islands was ratified in 1875, by which provision was made for the admission of sugar free of duty in the United States in return for the remission of duties on certain articles manufactured and produced in the United States. A reciprocity movement with the Latin-American countries developed in 1882, but for this it was also impossible to secure congressional endorsement.

By act of 24th May 1888, the president of the United States was authorised to invite delegates to an international American conference to consider measures for the formation of an American customs union. This proposition was found to be impracticable, but nearly all of the American republics recommended the negotiation of reciprocity treaties. This idea was incorporated into the Tariff (McKinley) Act of 1890, § 3. Agreements were made with various countries, notably Brazil, San Domingo, Costa Rica, and other countries by

which, in consideration for the removal by the United States of duties imposed upon sugar, coffee, and other raw productions of the countries named, those governments removed or reduced the import duties formerly imposed upon bread stuff, provisions, lumber, coal, and other products. This reciprocity provision was dropped from the Tariff Act (Wilson) of 1894. Owing to the brief existence of these agreements, and also to the fact that a severe commercial and financial depression interrupted trade in 1893, it is difficult to furnish evidence as to their value. In 1897, the republican party in general advocated the reintroduction of such a policy, while the democratic party opposed. The Tariff Act (Dingley), 1897, consequently reintroduces certain reciprocity provisions [*Commercial Arrangements concluded with Foreign Countries*, 55th Congress, 1st Session, Senate Doc. No. 52, p. 150; also *Report of the Committee on Ways and Means concerning Reciprocity and Commercial Treaties*, Washington, 1896, p. 643; also the Reciprocity Treaty with Canada of 1854, by F. E. Haynes in Pub. *Amer. Ec. Assoc.*, v. 7 pp. 417-486, and for subject in general, E. Schuyler's *Amer. Diplomacy*, New York, 1886, ch. ix.]

D. R. D.

RECOGNITION.

(*a*) Recognition of New Form of Government, p. 269; (*b*) Independence, p. 269; (*c*) Belligerency, 269.

International law knows at least three kinds of recognition, and it may be doubted whether a fourth is not slowly shaping itself. With the vast development of trans-oceanic commerce this subject becomes one of considerable economic importance.

(*a*) There is first *Recognition of a new form of Government* in an old-established state. This occurs when, as the result of a successful revolution, or a peaceful change, a monarchy is turned into a republic, or a republic into a monarchy, or a kingdom into an empire, or a new line of kings is established in a country, or a new president takes the place of one who is overthrown. It is the custom for other states to recognise the new government and carry on with it the intercourse they were wont to carry on with its predecessor, when events have shown that its own subjects and citizens are content to submit to its authority and allow it to speak on their behalf. The only alternatives to recognition in such a case are a cessation of intercourse or a war of intervention. The first is impracticable, unless the state in question is very insignificant; the second is happily rare. Despotic rulers are not eager to recognise republican governments, nor are powerful republics quick to enter into relations with successful dictators. But if the new political institutions prove to be stable, recognition must be accorded sooner or later. Thus Prussia, which was at first unwilling to treat as an established government the group of men who proclaimed the French Republic on 4th September 1870, entered into negotiations for peace with them in January 1871, after five months of strenuous warfare had shown that France entrusted her resources and her honour to their keeping.

(*b*) The next kind of recognition to be considered is termed *Recognition of Independence*. It happens when a new state is received into the family of nations and allowed to take its place as an international unit among the other powers of the civilised world. The rise of such a state is usually due to successful insurrection; and it is this case which has attracted the attention of statesmen and publicists, and caused the development of well-established rules. If a province or a colony revolts with a view to obtaining a separate state-existence of its own, other powers may recognise its independence without giving just cause of offence to the mother country, when the struggle is actually or virtually ended in favour of the political community claiming to be a new state. A *de facto* independence which bids fair to be permanent, and against which no serious efforts are made by the state most concerned in destroying it, is a matter of which other states may take notice as their inclinations and interests prompt. But if they recognise independence while the recognised power is still engaged in an uncertain conflict, their act is an act of intervention which the mother country may justly resent by war. This was the case in 1778 when France recognised the independence of the revolted British colonies in North America, while Great Britain was putting forth all her power in order to reduce them to obedience, and the result of the struggle was a matter of the greatest uncertainty. We immediately went to war with France, as the French government had calculated that we should. On the other hand, our recognition of the independence of Buenos Ayres, in 1824, caused no war with Spain, because that power had for years practically abandoned the contest with its rebellious dependency, and left it to the enjoyment of actual self-government. Recognition of independence may be granted either by formal declaration or by entering into such relations as usually exist between independent states, as for instance the negotiation of a treaty, or the reception of a diplomatic representative. When a new state comes into being by some more peaceful process than separation from a state already in existence, there can be no question as to the propriety of its recognition as an independent member of international society, provided that it possesses a government capable of fulfilling the duties and supporting the responsibilities thrown upon civilised powers by modern international law (see Lawrence, *Principles of International Law*, §§ 57-60).

(*c*) *Recognition of Belligerency* forms the third of the kinds of recognition we are considering. When a community engages in insurrection against the constituted authorities with the object of changing the government, redressing grievances, or securing its own independence, it places itself in a peculiar and anomalous position. War is a function of states, and it is not a state—it may not even wish to become one. On the other hand, it is supporting armies, and possibly navies also, and is carrying on hostile operations with all the means at its disposal. If it is not a lawful belligerent its troops are bandits and their acts of force mere robbery and murder. Yet, as we have just seen, its independence and statehood cannot be

recognised, while the struggle still continues, without a breach of comity towards the parent state. Moreover, difficulties arise about such economic questions as the validity of attempts on the part of the insurgent governments to regulate foreign commerce at their ports by levying import duties, granting clearances, and exercising a general superintendence. These matters have been settled by what is called recognition of belligerency, which accords to the recognised community all the rights and obligations of a state as far as the war and foreign commerce are concerned, but no further. Its troops are lawful combatants, its ships of war lawful cruisers, its captures lawful captures, its customs lawful duties, and its blockades lawful blockades. But it may not send regular diplomatic ministers, or negotiate treaties, or carry on with neutral powers the usual official intercourse between government and government. Recognition of the belligerency of insurgents is never welcome to the state against which they are in revolt, though it gains by being free from international responsibility for the acts of its rebels, and by being able to enforce against recognising powers all the rights over neutral commerce possessed by a regular belligerent. But recognition gives it no just ground of quarrel if the recognised community possesses an organised government, ruling over a fairly well-defined territory, and carrying on war in civilised fashion with forces under a reasonable degree of order and discipline, and if, in addition, the interests of the recognising state are so closely affected by the conflict that it is obliged to decide how it will treat the insurgents and their operations. The question was thoroughly discussed in the controversy which grew out of the recognition of the belligerency of the southern confederacy by Great Britain in 1861, soon after the outbreak of the great civil war in the United States (see *Letters of Historicus*, London, 1863). The rules laid down above would be generally accepted to-day, but they do not cover every possible or probable case. Five times within the last twenty-five years has a conflict against established authority been maintained mainly by a revolted fleet. On none of these occasions did other powers recognise belligerency, but whenever the revolt was serious and long-continued, they hesitated to treat the insurgent ships as pirates. Only in one case, that of Chile in 1891, was the insurrection successful. Yet in every case a distinction was made in practice between the revolted cruisers and ordinary pirates, and, with some few aberrations, the principle was acted upon that, as long as there was no attempt to exercise belligerent rights against the subjects and commerce of other powers, they on their part would not interfere with the operations of the insurgent squadrons, or prevent the exaction of reasonable customs duties in ports under insurgent control. Some name for this is required, and it might well be called recognition of insurgency (see an article by Lawrence called "Recognition of Belligerency considered in relation to Naval Warfare," in the *Journal of the Royal United Service Institution* for January 1897). Recognition by one power does not bind other powers, and the insurgents whose belligerency is recognised do not acquire the rights of war as against neutrals, except in respect of those states who have accorded them recognition. The mother-country cannot be expected to recognise in a formal and official manner the belligerency of its revolted subjects; but in practice it generally treats them as lawful combatants, from both motives of humanity and from a desire to avoid reprisals.

[See Hall, *International Law*, §§ 5, 26-29, and notes, Oxford, 1895.—*Letters of Historicus* (*i.e.* Sir W. V. Harcourt), London, 1863.—Halleck, *International Law*, ch. iii. §§ 21-28 and notes, Baker's ed. London, 1878.—Lawrence, *Principles of International Law*, §§ 56-60, 302-305, London and Boston, 1895.] T. J. L.

RECOGNITIONS. The system of recognition by jury was improved and extended under Henry II., who, in what is known as the Great Assize, applied it to obviate the need of having recourse to trial by battle in disputes as to land. Glanvill (*De legibus Angliæ*, ii. c. 7-17) states that the proceedings began by the person in possession applying the *Curia Regis* to stay all other proceedings until the cause for which he placed himself on the assize had been determined. His adversary then applied to the court for a writ by which four knights of the same country and neighbourhood should be directed to choose twelve lawful knights, also from the same neighbourhood, who should declare an oath which of the two litigants had the greater right to the land in dispute. When the four knights had appeared before the court, and the twelve had been nominated and sworn, the recognition proceeded on the day appointed, whether the case was defended or undefended. If the twelve jurors knew the facts of the case and agreed on a verdict the cause was ended; but if some of them were ignorant of the facts they were to be set aside, and others called in their place who were better informed. So, also, if they were divided in opinion, others had to be brought in until twelve were unanimously in favour of one side or the other. The course in the assizes of Novel Disseisin, Mort d'ancester, Darrein presentment, and others was the same, except that the sheriff nominated the jurors.

It will be observed that the jurors were sworn witnesses to the fact, and not, as at present, judges of the fact, founding their verdict wholly on testimony brought before them. It is also remarkable that their knowledge of the case might be derived *per verba patrum suorum*, or from persons in whom they implicitly trusted.

[Stubbs, *Const. Hist.*, i. p. 615.—*Select Charters*, p. 161.—Sir F. Palgrave, *The Merchant and the Friar*, 1837, 2nd ed. 1844. R. H.

RECOINAGES, or the calling in of old and issue of new coins, played a very small part in English history down to 1547. Nearly every alteration of the coinage (1066 to 1543) reduced its weight but not its fineness, and

since 1344 (when gold began to be regularly coined) affected both metals simultaneously; the exceptions are the lightening of gold only in 1465, and the issue of one base gold coin in 1526; so that as a rule the new circulated on equal terms with the old abraded and depreciated coins. True, we read of detached laws demonetising light silver and offering to recoin it at the holder's expense (1292), and in one case the king offered to waive his dues if light gold were brought in for recoinage within a certain date (1421), thus putting a premium upon speed. And, doubtless, the debasement of gold and silver (1543-45) drove out the old coin, but by natural and not artificial means. The difficulty of superseding the old coinage was never crucial until the task of restoring gold and silver was undertaken, in 1549 and 1548 respectively; for the two metals have, since 1548, been dealt with separately. In order to restore gold (1549-53) the old coins were exchanged at the mint during a certain interval at tale rates; afterwards their tale values were reduced. Similarly in such subsequent alterations of the gold coinage as have been due to the altered ratio of gold to silver, and therefore involved reductions of weight, the tale value of old pieces has been usually raised. Other restorations of the coin being due to light and base coin, have involved complete demonetisation, which has been effected differently at different times. The most important instances were the following:

In 1560-61 the mint took base silver testoons and groats at a reduced tale rate from 27th September to 20th May, adding, up to 25th April, a premium for large quantities. Lesser silver moneys were similarly bought in up to 20th September. Otherwise part of the base money was demonetised 9th April, and the other part 20th July. The mint bought in £638,113 : 16 : 6 tale, and netted a profit of £14,079 : 13 : 9 (Froude, *Hist. of England*, vol. vii. p. 453, confuses silver with total recoinage).

In 1696 tax collectors took light and base silver coin at tale rates from 1st Jan. to 4th May, and tellers of the exchequer up to 24th June (7 & 8 Will. III. c. 1); then they paid it in to the central and to five local mints to be recoined. After this last date its demonetisation was complete. The remaining hammered silver money was taken by weight at the mints from 4th Nov. 1696 to 1st July 1697 at a premium of 2d., and by tax collectors for a less period at a premium of 4d. per oz. over mint value; otherwise it was demonetised 1st Dec. 1696. These two recoinages amounted, according to Ruding, to £6,882,908 : 19 : 7 tale, and cost £2,700,000 (!) (Ruding includes recoinages from plates; Macaulay, *Hist. of England*, ch. xxi., confuses these two processes.)

In 1773-74 tellers of the exchequer, tax collectors, and special local exchangers, bought in at tale rates two classes of light gold coin during 1½ months and 3 months 19 days respectively, and exchanged them at the Bank of England, which forwarded them to the mint for recoinage; a third and worse class was bought in by weight. This recoinage cost £517,320 : 2 : 2½.

In 1817 tale values were given by the mint, helped by local exchangers and banks, for all light silver from 12th Feb. to 1st March, and for all but the lightest silver for another three months; otherwise the old silver was demonetised 1st March. In this recoinage most of the new coin was ready before the old coin was called in. This recoinage amounted to £2,599,487 : 5 : 2 tale, omitting coins coined in advance or out of plate, etc., and cost £793,624 : 13 : 5, £233,764 : 3 : 10 of which was paid out of profits of the new silver (token) coinage [*Accounts and Papers*, 1818, No. 227]. In the copper recoinage of 1817 copper more than twenty years old was brought in by weight with the usual premia for quantity and speed. The recoinages of gold, under the act of 1891, had withdrawn up to March 1897 about £32,900,000 in sovereigns and half sovereigns. For further details see LIGHT GOLD AND SILVER COIN.

[R. Ruding, *Annals of the Coinage*, 3rd ed. 1840.—United States *Annual Reports of the Director of the Mint* state annual recoinages of every important country.] J. D. R.

RECORDE, ROBERT (1510?-1558), was admitted at Oxford about 1525 and elected fellow of All Souls' in 1531. He taught mathematics and medicine at Cambridge, graduated M.D. there in 1545, returned to Oxford, and afterwards practised as a physician in London in 1547. He became controller of the mint at Bristol in 1549, and in May 1551 general surveyor of the mines and money in England and Ireland.

He was the first who wrote on arithmetic, geometry, and astronomy in English; he introduced algebra into England, and was probably the first among his countrymen to adopt the system of Copernicus. His works include some on medicine. The mathematical treatises are (1) *The Grounde of Artes* (1540, and many subsequent editions to 1699) on arithmetic, in which reference is made to a publication on alloys, contemplated by Recorde; (2) *The Whetstone of Witte* (1557, etc.) on algebra, the first English book containing the symbols + and −, and "a paire of paralleles, or Gewowe lines of one lengthe, thus:" = to represent equality; (3) *The Pathway to Knowledge* (1551, etc.) on geometry; (4) *The Castle of Knowledge* (1551, etc.) on astronomy.

[*Dictionary of National Biography*, vol. xlvii. p. 367-369.—Prof. de Morgan in *Companion to the Almanac*, 1837, p. 30.] H. R. T.

RECOUP (Fr. *recoupe*). To replace, or regain a sum advanced or lost. R. W. B.

RECOURSE. In dealing with bills of exchange, each holder has a right of recourse upon his immediate endorser and upon every other previous endorser, provided the bill has been duly presented at maturity, and noted or protested according to law, and also that the demand for repayment is made in due course without delay. As a matter of convenience it is usual, in extensive discount operations, in the case of bills endorsed in blank by previous holders, to dispense with actual endorsement of each bill by obtaining a written undertaking to admit recourse. In some cases bills are discounted without recourse, and are so endorsed. Coupons and notes, payable abroad, are sold with recourse unless otherwise agreed. R. W. B.

RECOVERY. A collusive action by means of which a tenant in tail could bar all entails, remainders, and reversions, and could either convey an estate in fee simple to a purchaser, or retain it himself. This was in ordinary use from the reign of Edward IV. to the year 1833. Roughly speaking, it was a device by which a man whose estate was entailed on his children could "cut off the entail," that is, deprive them of their right to succeed him, and could either keep his land as a fee simple, or sell it to strangers. It resulted from the desire of the judges to break down the statute of Edward I. known as *de donis*. In a common recovery with "double voucher," the lands were conveyed by deed by the tenant in tail to a person called the "tenant to the *præcipe*," against whom feigned proceedings were then taken in the court of common pleas. The "demandant," or intending purchaser, who desired to become the "recoveror," issued a writ against the tenant to the *præcipe* who thereupon called on the tenant in tail to warrant his title in accordance with a supposed agreement to do so. The tenant in tail, in his turn, vouched or called upon some landless person, usually the crier of the court, to warrant his own title. The demandant then, by permission of the court, took the crier or "common vouchee" aside to speak with him, and having once quitted the court, the man did not return. On this default judgment was given for the demandant or recoveror to recover the lands from the tenant to the *præcipe*, that is, in reality, from the tenant in tail; and for the tenant in tail to recover lands of *equal value* from the common vouchee, who, by disappearing, had failed to warrant his title. If lands of equal value had *actually* been recovered, they would have taken the place of those lost by the common vouchee's default, and would have descended to the issue of the tenant in tail; but as the man had no land, the judgment of the court against him was nugatory, and thus not only the rights of the issue, but also of the reversioners and remainder men were defeated, and the estate tail was therefore said to be barred. On the other hand, the demandant or recoveror obtained by judgment of the court an estate in fee simple of which the sheriff was directed by writ to put him in possession. This jugglery was abolished by statute 3 & 4 Will. IV. c. 74 (see ENTAIL, LAW OF; FINE).

[Joshua Williams, *Law of Real Property.*—Hallam, *Constit. Hist.*, cap. i.] R. H.

RECTA PRISA was the right which, according to *Fleta* (Lib. 2, c. 22, written *circa* A.D. 1290), the king exercised in taking one barrel of wine from the prow and another from the stern of every vessel laden with wine, on payment of twenty shillings for each such barrel. If he required more he was obliged to pay a price settled by trustworthy people (*precium fide dignorum*).

Whether this definition was correct or not in 1290, it does not altogether agree with that given in *Liber Albus*, written a hundred and thirty years later. In that work the king is stated to have been entitled to take 2 tons of wine from every vessel bringing 20 tons or more; and 1 ton from every vessel bringing 10 tons or more but less than 20 tons. From a ship bringing less than 10 tons he was entitled to take nothing.

The Cinque Ports and the port of London claimed to be exempt from *Recta Prisa*, but it is clear from the terms of the grant to the barons of the Cinque Ports in 6 Ed. I. that the exemption was only intended to apply to wines imported by them for their own use.

[See PRISAGE; PRISE.—Hubert Hall, *The Customs Revenue of England*, London, 1885, 8vo.] G. I. T.

REDEMPTION OF NATIONAL DEBT. The following table shows what has been done in the redemption of the public debt of this country between 1882 and 1897, the total diminution in the indebtedness being, in the sixteen years named, about £118,000,000.

Aggregate Gross Liabilities of the United Kingdom, including the Funded Debt, Unfunded Debt, Estimated Capital Value of Terminable Annuities, Russian Dutch Loan, Liability, 1882-1891; *Imperial Defence Act,* 1888; *Barracks Act,* 1890; *Telegraph Act,* 1892; *Naval Work Acts,* 1895; *and from* 1882 *to* 1894 *the Estimated Amount of Trustee Savings Banks and Friendly Societies Deficiency.*

Years ended 31st March.	Aggregate Gross Liabilities of the State.	Years ended 31st March.	Aggregate Gross Liabilities of the State.
1882	£763,589,816	1890	£690,663,838
1883	756,946,020	1891	685,954,018
1884	749,214,331	1892	680,541,767
1885	743,124,689	1893	673,647,564
1886	745,039,844	1894	669,104,024
1887	738,779,176	1895	660,160,607
1888	706,727,581	1896	652,540,105
1889	699,300,769	1897	644,909,847

[For further details and explanations of this statement, see Parliamentary Paper, C 8227, 1897; and arts. DEBTS, PUBLIC; NATIONAL DEBT; SINKING FUND (*Statistical Abstract for the United Kingdom from 1893 to 1896*).]

REDEMPTION, EQUITY OF. See EQUITY OF REDEMPTION.

RE-ENTRY. The right of re-entry is the name given to a lessee's right to cancel the lease and take possession of the property leased in the event of the lessee failing to observe the covenants contained in the lease. This right has been rendered much less oppressive by recent legislation (see ENTRY, RIGHT OF). E. S.

REES, OTTO VAN (died 1868), born at Liège, Belgium, studied law at Utrecht from 1844 to 1851, and practised in it there till 1858. He then was appointed professor of Political Science at the university of Groningen, and in 1860 at that of Utrecht, where he lived until his death in 1868. Besides a large number of articles on different historical and economic subjects, for the greater part published in his periodical the *Pantheon*, Van Rees wrote the following more distinctly scientific works:

Verhandeling over de Aenwysing der politike gronden en maximen van Holland en West-Vriesland door Pieter de la Court. (Treatise and Summary of Political Bases and Maxims in Holland and West-Vriesland, by P. de la Court), Utrecht, Dekema, 1851.—*Prysverhandeling over de verdiensten van Gysbert Karel van Hogendorp als staathuishoudkundige, tenaanzien van Nederland.* (Prize-Essay on the Merits of G. K. van Hogendorp as an Economist, with reference to the Netherlands), Utrecht, Van der Post, 1854.—*Voorlezingen over de geschiedenis der Nederlandsche volksplantingen in Noord-Amerika, beschouwd uit het oogpunt der koloniale politiek* (Lectures on the History of the Dutch Colonies in North-America, considered from the point of view of Colonial Politics), Tiel, Campagne, 1855.—*Geschiedenis der staathuishoudkunde in Nederland* (History of Political Economy in Holland), Utrecht, Kemink en Zoon, 1865 and 1868.

Of these works, which all have an historical character, the latest mentioned especially has great merits; the first part of this contains a very complete history, not only of the science of political economy in Holland, but also of the general social development of Holland to the end of the 18th century, from an economical point of view; the second part gives the history of the East- and West-Indian Companies; it is the best work written on that subject.

A. F. V. L.

REEVE. The *præpositus* or representative usually elected by the villeins of a manor from among themselves, though sometimes nominated by the lord. He had the public duty of going with the priest and four other men, *hundredarii*, to attend the hundred court, the court of the county, and the justices in eyre, when the lord of the manor himself did not go. He also led the men to the FYRD (*q.v.*). At other times he acted as a kind of foreman of the villeins, superintending their labour and keeping account with the bailiff of the due performance of each man's yearly task. In return he was freed from all the ordinary duties of a villein in respect of his holding; but the office does not seem to have been desired, and Maitland (*Sel. Pleas in Manorial Courts*, pp. 23, 45) gives instances of considerable payments made for permission to relinquish it. At Whissonsett in 1382 (*Court Rolls*, in possession of Mr. Walter Rye) the office was annexed to certain holdings in turn. R. H.

REFEREE is the name for a person to whom a dispute is referred as arbitrator (see ARBITRATION).

All proceedings under a reference are now regulated by the Arbitration Act 1889, which deals with arbitrations agreed on by the parties, as well as with references under orders of court. In either case the referee has extensive powers as regards the summoning and the examination of witnesses, and his award is enforced in the same way as a judgment of the court. Three "official referees" are attached to the supreme court, but arbitrations ordered by the court may also be referred to "special" referees, whilst, on the other hand, voluntary arbitrations may be taken before the "official referees" (see *Arbitration Act*, 1889, § 3). E. S.

REFERENDUM means the decision of a political question, partly by the direct votes of the people, partly by representative institutions. Decisions by a people without representative institutions, as in Tacitus (*Germania*, xi.), or in the "Landesgemeinde" of Glarus, Uri, Unterwald, and Appenzell for the last six centuries, or in the "town meeting" of New England townships for nearly three centuries, or in Rousseau's or More's Utopias, illustrate "direct self-government," not the referendum. Again in 1888 *et seq.*, French and Italian mayors took the votes of their constituents on matters involving expense; this, like the votes in Belgian towns for universal suffrage (Feb. 1893), and the Durham miners' vote against eight hours (1891), and the South Australian vote on education (1896) binds nobody, and therefore does not belong to politics. Votes for a person are "plébiscites" not referenda; and the Belgian election in 1892, in order to revise specified articles of the constitution, was an election *ad hoc*, not a referendum. Again the Swiss laws of 1874 and 1892, under which one of the two federal councils or 50,000 citizens may demand a popular vote whether the constitution or some part of it shall be

amended, is "popular initiative" or "mandate"; and "mandate," though it may (since 1892) take the form of a "projet de loi," is not, strictly speaking, referendum. Again the arrangement under which the Swiss constitution of 1802 was rejected by a majority of actual but not of registered voters, and was declared accepted, is more properly classed as "veto"; but "mandate" and "veto" are sometimes classed as "referenda."

Origin.—In the 15th century certain communes in the Grisons of the "Landesgemeinde" type appointed delegates to form leagues; these delegates accepted the decisions of the league "ad referendum," *i.e.* subject to the approval of their respective communes. Similarly in 1643 four colonies formed New England, but the Plymouth delegates would not sign the federal articles until they were approved by their constituents. It arose in the federal efforts of directly self-governing townships.

Progress.—In the United States two of the eleven original states which framed constitutions after the secession submitted them to popular vote. In both the township system prevailed. Only one of the thirty-two state constitutions between 1868 and 1893 was not submitted to popular vote. And constitutional law has enlarged its scope so as to include state loans, etc. Again "local option" laws were almost unknown in 1850; since then each state has passed numerous laws to enforce free schools, teetotalism, land registration, etc., which are null and void, except where voters of some locality ratify them. Of Swiss federal constitutions since 1802 two were not (1803-1815), two were (1848 and 1874) submitted to the referendum. That of 1874, like that of 1848, contains a compulsory referendum in case of amendments to the constitution (art. 121) (compare the French system of 1795, art. 343, 346). It also has a permissive referendum in the case of all other laws and non-urgent general resolutions (arrêtés); these being null and void for 90 days, during which 30,000 voters or 8 cantons may demand a referendum (compare the French system of 1793). According to Lowell, between 1874 and 1897 $\frac{29}{182}$ laws, etc., were submitted to permissive, 14 to compulsory, referendum. The people have thus accepted civil marriage plus divorce, bankruptcy, and factory acts, a federal monopoly of bank notes (1891) and spirits, compulsory purchase of railways by the federation (1897), compulsory insurance, a fighting tariff, and capital punishment, and have rejected compulsory vaccination, federal bank notes (1875) and secular education. They also used, in 1893, the "mandate" to obtain an anti-Jewish Slaughter of Animals Act, which their legislature wisely worded so as to make it inoperative; in 1894 a mandate for "le droit au travail" was rejected. As for cantons, the confederation only guarantees their constitutions, if ratified and alterable by a majority of citizens (art. 6). The referendum, confined to a few cantons in 1830, now figures in the legislation of every canton except those of the Landesgemeinde type and Fribourg; and the compulsory Zurich system of 1868, under which all laws and most general resolutions are null and void until accepted by the people in their meetings twice a year, had in 1895 spread to 9 other cantons. In Belgium a royal referendum has been proposed and rejected (1892-93).

In England adoptive acts have worked by means of a local referendum (1819-94). Guardians could, with the consent of the vestry, buy and let allotments since 1819. Other laws enabled (say) fifty ratepayers to require a poll—this is "the mandate," and a $\frac{2}{3}$rd, latterly a bare majority of voting ratepayers to adopt for their parish elected vestries (1831-94), lighting and watching (1833), burial places (1852), recreation grounds (1860), baths (1846), and libraries; but in boroughs the town council stood in place of the ratepayers except as to libraries, an exception which disappeared in England and Scotland, 1893-94. The constituents might since 1870 similarly create or, since 1876, destroy a school board subject to governmental discretion; a power which, since 1894, has been transferred to parish meetings or polls in rural districts. Advocates of temperance and a universal eight hours' day often rely on local option. Small groups of ultra-socialists (L. Gromlund, *Co-operative Commonwealth*, 1892, p. 129) and ultra-individualists (Auberon Herbert, *Anti-Force Papers*, 1885) advocate the Zurich system. A strike is usually preluded and concluded by a vote of strikers, though there are strike delegates.

In 1893 the House of Lords proposed to allow certain workmen by a $\frac{2}{3}$ majority to exclude the Employers' Liability Bill from their industry (Hansard, 4S. vol. xx. pp. 2 and 3); this proposal has not been revived in the discussions of the act of 1897; had it been passed it would have been the only instance of the popular veto in English legislation.

"Mandate" and "referendum" are also loosely used in political discussions, thus the proposal, made perhaps for the first time by Lord Salisbury twenty-five years ago (see Courtney's speech, *Times*, 9th Oct. 1884), often made by Conservatives and always rejected by Liberals, that an election should settle differences between the Lords and Commons, is commonly referred to as the "referendum de partage," instead of "the election *ad hoc*." The referendum can hardly be introduced into constitutional questions, except where the representative is regarded as a delegate, and that is not the case in England.

[J. Berney, *L'Initiative populaire et la législation fédérale*, 1896.—S. Deploige, *Le Referendum en Suisse* (1892), translated C. P. Trevelyan, with introduction and bibliography by L. Tomn.—Numa Droz, *Contemporary Review*, vol. lxvii. p. 328.—A. L. Lowell, *Government and Parties in Continental Europe* (1897).—E. P. Oberholtzer, *The Referendum in America* (1893).—R. de la

Sizeranne, *Le Referendum communal* (1893).—J. Signorel, *Étude de Législation Comparée sur le Referendum Législatif* (1896).—L. Tomn, "The Referendum in Australia and New Zealand," in *Contemporary Review* (August 1897), mentions attempts to introduce a "referendum de partage." —S. and B. Webb, *Industrial Democracy*, 1898.]

J. D. R.

REFINING. See ASSAY.

REFORMATORIES. See PRISON LABOUR.

RÉGALE. During the vacancy of an archbishopric or bishopric the French kings claimed the right (1) to receive all the revenues of the diocese, (2) to appoint to all benefices vacant during the interval, (3) to send royal officers to administer the temporalities of the see. These three rights, collectively called the *régale*, were first formulated in the testament drawn up by Louis IX. before his departure on the crusade. In the reign of Louis XIV. it was determined to extend the system of the *régale* to the provinces recently added to France. This gave rise to a vigorous struggle on the part of the bishops in the annexed provinces, and their cause was supported by the pope. To coerce the papacy, Louis obtained from the national synod of the clergy the four articles of 1682, which declared the practical independence of the Gallican Church. The Pope Alexander VIII. found it necessary to give way on the original ground of quarrel, and the *régale* was enforced in all the provinces of France as long as the monarchy lasted.

[Gasquet, *Précis des Institutions Politiques et Sociales de l'Ancienne France*, tome ii. ch. i.]

R. L.

REGALIA. The term *regalia* was used by the civilians to denote the royal rights of a sovereign. *Majora regalia* comprises the greater rights relating to the royal character or authority, *minora regalia* the lesser rights including rights to revenue. [Stephen's *Blackstone*, bk. iv. p. 1.]

The term is also used to denote the ensigns of royalty such as the crown, the sceptre, and coronation robes.

J. E. C. M.

REGARDERS. See FORESTS, MEDIÆVAL.

RÉGIE. A French word which, in its widest sense, means the administration of goods by a responsible agent. In a more special sense, it is applied to levying taxes, in contrast to farming them (see FARMER GENERAL; FARMING OF TAXES; PUBLICANI), and to the construction of public works, by the state itself, instead of building by contract. It is also often used as the name of monopolies belonging to the state in France, particularly the monopoly of tobacco.

[Article "Régie" in the *Nouveau Dictionnaire d'Économie Politique*.]

E. Ca.

REGISTRATION, SCOTTISH LAND SYSTEM. See LAND REGISTRATION; SASINE.

REGRATOR. See FORESTALLERS AND REGRATORS.

REGULATED COMPANIES were mercantile associations holding the exclusive right of trade with certain countries. Each member managed his own business on his own capital, but was obliged to observe the company's regulations.

The Hansards of the Empire (see HANSEATIC LEAGUE) and the merchants of the STAPLE were two of the earliest regulated companies. However they had decayed before the end of the 16th century. Of more importance to England's budding commerce were the Merchant Adventurers (see ADVENTURERS, MERCHANTS) the TURKEY, LEVANT, RUSSIA, and EASTLAND companies. The Adventurers sprang from the Mercers' Gild in 1407, and still existed at the end of last century; they traded between the River Somme and the Skaw in cloth. The Turkey Company, descended from the Grocer's Gild, was confined to merchants who were freemen of London. The fine on entrance was reduced to £20 by parliament in 1752 (26 Geo. II. c. 18), but Adam Smith declares it in his time "a strict and oppressive monopoly." The Levant Company was incorporated in 1581, continued by the Long Parliament in 1644, and suppressed in 1825 (6 Geo. IV. c. 33). The Russia or Muscovy Company's charter dates from Philip and Mary; it was one of the most exclusive associations, but its fees were cut down to £5 : 10s. by parliament (10 & 11 Will. III. c. 6). The Eastland Company, trading with the Baltic, was incorporated by Elizabeth; originally oppressive, its fees were reduced to 40s. in 1684 (25 Car. II. c. 7). Besides these, the EAST INDIA COMPANY from 1600 to 1612 was a regulated company, and in 1698 the "General" East India Company was formed on the same basis. The old "London" East India Company joined as one of its members, but ten years later the two combined on a joint-stock as the "United Company of Merchants of England trading to the East Indies." The China tea-trade was, however, managed till 1834 by the "Co-hong" under the system of regulation. The African Company (see AFRICAN COMPANIES, EARLY) at first on a joint-stock, became in 1750 a regulated association; it failed through want of funds and the difficulty of management, and was dissolved (1 & 2 Geo. IV. c. 28).

These companies were formed to meet the necessity of combination amongst merchants in foreign parts before the 16th century. They therefore supported consuls to look after their interests, and the Turkey Company contributed towards the expense of the ambassador at Constantinople. Once a company was formed, the regulated system was only a natural extension of the ideal of "well-ordered trade," from municipal to international commerce. No one but a member of the company might trade within its territory. No member might

sell below the standard price. No member might sell more than a certain quantity in each year. It was these regulations which made the companies so unpopular. The sudden flood of wealth from the New World caused the 17th century to be a time of great enterprise. Apprentices and men of straw rushed into trade on borrowed capital and cut prices down to an alarming extent before they failed. Against these INTERLOPERS the companies sought to guard by high entrance fees, and no doubt the £25 fine of the Levant Company and the £50 and £100 fine of the Adventurers did keep many men out; at any rate it must have prevented a general merchant speculating on an occasional voyage, when he saw a favourable opportunity. However, in the case of the Adventurers, their revival in 1616, after an eight years' suppression, the report of the commission on trade in 1622, and their successful resistance to the complaints of the Merchant Adventurers of Exeter in 1643, 1645, and 1661, show that their contemporaries approved of them. With most of the other companies, parliament had to interfere after the Restoration, but revoked the charter of none.

More doubtful was the effect of the regulation limiting a merchant's annual sales. This STINT may be compared with the VEND (*q.v.*) of the Newcastle coal-owners, by which the probable amount of the year's demand was fixed by a committee, and each owner raised his share, proportionately to the output of his mine, as estimated relatively to the others (cp. *Report of the Select Committee on the Coal Trade*, 1830, viii. 6). Its supporters urged that by this device no one man could engross all the trade and form a virtual monopoly. Its opponents declared that it limited the supply of goods and raised prices. To this the Adventurers answered that as only one-tenth of the merchants authorised to trade used their privileges, the deficient supply was due to the unprofitableness of the trade, not to the company's action.

Throughout the 16th century, the regulated companies held their ground; in the 17th they were out of date. Men cared less for "well-ordered trade," and preferred to regulate commerce by customs and bounties rather than by the hated monopoly system. Sir Josiah CHILD (*Discourse of Trade*, iii.) and Adam SMITH (bk. v. i.) declare the companies are useless, and this the latter thinks "the highest eulogy." Probably their accusations of oppression and restriction were very much truer after 1650 than before. From the Revolution the companies steadily declined, and by 1800 were of no importance. L. R. H.

REGULATION OF LABOUR. See INDUSTRY, ORGANISATION OF.

REHABILITATION (Fr.). An act of procedure to restore to the person rehabilitated the possession of the civil or political rights, the loss of which has been incurred by bankruptcy or condemnation for a grave criminal act. The most frequent demands for rehabilitation are those by a trader, who, since his bankruptcy and discharge, has paid all his former debts with interest and costs, including those from which he may have been released by composition or payment of a dividend. The petition must be addressed to a court of appeal, and if the result of the inquiry instituted is to show that the bankruptcy was not aggravated by any fraudulent acts, the rehabilitation is granted by a decree read in the court by which the demand was received, and is entered on the register. Among the disabilities of bankrupts removed by rehabilitation are incapacity to hold the offices of *agent de change* (see CHANGE, AGENTS DE) or broker, to enter a public bourse, to become an elector, or a member of a legislative body, or council of prud' hommes; to act as a juror, arbitrator, or witness to a notarial act, to obtain discount at the bank of France, etc. In England rehabilitation in the above-mentioned sense is obtained by an annulment of the Bankruptcy or by an order of discharge coupled with a certificate showing that the bankruptcy was not caused by misconduct (Bankruptcy Act, 1883, §§ 3 and 6). T. L.

REI. The rei, or ree, is the unit of account in both Portugal and Brazil. 1000 reis = 1 melreis (see MILREIS). F. E. A.

REICHSBANK. See BANKING: GERMANY.

REICHSMARK. See MARK (GERMAN).

RELATIVITY, PRINCIPLE OF, IN POLITICAL ECONOMY. The principle that the economic doctrines true for any given epoch are relative to the particular circumstances of that epoch, and cannot be regarded as permanent or true for all times, is an essential element in the teaching of the historical school of economists. The idea of the relativity of economic doctrines follows easily from the conception of economic life as exhibiting continuous organic growth and development, and this conception is itself the natural outcome of historical study.

Richard JONES and Friedrich LIST are to be regarded as important forerunners of the historical movement rather than as themselves typical representatives of the movement itself. What is most characteristic, however, in their teaching is the insistence upon relativity in two particular spheres; and a brief reference to their views will serve to illustrate what is meant by the principle of relativity in general. Jones specially insisted on the limited applicability of the Ricardian theory of rent as regards both place and time. A theory based on the assumptions of individual ownership and freedom of competition could not, he pointed out, apply to oriental states of society in which joint ownership is the rule and rents are regulated by custom, nor even to those

instances nearer home in which land is held on a customary tenure, as in the métayer system (see MÉTAYAGE). Similarly, as regards limitation in time, he showed that the Ricardian law could not hold good in a condition of affairs such as existed in mediæval economy, when land was to a great extent held in common, and the relations between the owners and the tillers of the soil were not controlled by free competition. Turning to List, we find that his defence of protective duties is based on the recognition of relativity in the conditions of economic productivity in a community. The foundation of the argument is the position that all civilised communities of the temperate zone pass through successive economic stages, of which the last three are the stage of agriculture pure and simple, the stage of agriculture combined with manufactures in a nascent and slowly developing condition, and then the stage in which agriculture, manufactures, and commerce have all reached a high and well-balanced development. In the purely agricultural stage free trade with richer and more developed countries is, in List's view, a necessary condition of advance, and in the last stage of all free trade is also advantageous. On the other hand, the training and development required for passing from the second stage to the third can be acquired only by means of a carefully arranged protective system; and in the second stage such a system is, therefore, necessary for progress. The solution of the problem of protection *versus* free trade is thus regarded as relative to each particular people, and the stage of development which they have reached.

The principle of relativity in the sphere of economics was expressed in a more general form by Wilhelm ROSCHER. Applying to economic phenomena ideas which writers on jurisprudence had already applied to legal institutions and conceptions, he insisted on the necessity of always taking into consideration the varying character of economic habits and conditions; and, in particular, he pointed out the fallacy of criticising economic institutions, regardless of a people's history, and the stage of social and industrial development to which they had attained. Karl Knies affirmed still more definitely the relativity of economic doctrines in opposition to what he termed the *absolutism of theory*, that is, the claim—explicitly put forward by some of the older writers, and tacitly assumed by others—to offer something that is true unconditionally and in the same way for all times, lands, and nationalities. "In opposition to the absolutism of theory, the historical conception of political economy rests," says Knies, "upon the fundamental principle that the theory of political economy, in whatever form we find it, is, like economic life itself, a product of historical development; that it grows and develops, in living connection with the whole social organism, out of conditions of time, space, and nationality; that it has the source of its arguments in historical life, and ought to give to its results the character of historical solutions; that the laws of political economy should not be set forth otherwise than as historical explanations and progressive manifestations of the truth; that they represent at each stage the generalisations of truths known up to a certain point of development, and neither in substance nor in form can be declared unconditionally complete; and that the absolutism of theory—even when it gains recognition at a certain period of historical development—itself exists only as the offspring of the time, and marks but a stage in the historical development of political economy" (*Die politische Oekonomie vom geschichtlichen Standpuncte*, pp. 24, 25). This extract may be regarded as expressing the general view as to the relativity of economic doctrines taken by the historical school distinctively so-called.

The relativity of current political economy is affirmed no less definitely, but from quite a different point of view, by Walter BAGEHOT, who regards it of importance expressly to limit the science to one particular kind of society, namely, "a society of grown-up competitive commerce," such as we find in the most highly civilized modern communities. Political economy is, in other words, limited to "the theory of commerce, as commerce tends more and more to be when capital increases and competition grows." It will be observed that whilst the object of the historical school is to concentrate attention on economic history and on the study of economic development as opposed to the study of economic relations in a given society, Bagehot's object is just the reverse. He wishes to concentrate attention on current economic phenomena, and to avoid the distraction that must result from turning aside to the superficially corresponding but yet essentially different phenomena of earlier epochs.

In endeavouring to form an estimate of the importance to be attached to the relativity of economic doctrines we shall do well to have regard (1) to the distinction between economic theorems and economic precepts, and (2) as regards economic theorems, to the distinction between abstract and concrete economics.

Roscher in his affirmation of relativity is thinking mainly of economic institutions and economic policy, and in this sphere the principle of relativity may be laid down with less qualification than when we are dealing with economic laws in the more strictly scientific sense, that is, with statements of uniformities as distinguished from recommendations as to what ought or ought not to be done in practice. It is only

by the aid of abstraction that any claim to universality can be made good, and in formulating an economic policy, we cannot profitably carry abstraction very far. In theoretical investigations hypothesis and abstraction are often indispensable; but when we apply our theory with the object of laying down rules of practice, it is desirable to have recourse to hypothesis but sparingly. It is indeed doubtful how far, in the examination and criticism of economic institutions and policies, we can advantageously carry our abstraction even to the stage of neglecting social considerations of a purely non-economic character. Both the social and the economic bearings of a given line of action will, however, vary with the circumstances of different nations and different ages. Hence a given economic policy can in general be recommended only for nations having particular social and economic surroundings, and having reached a certain stage of economic development. It may be possible to formulate as having universal validity certain negative precepts, namely, that certain lines of action cannot under any circumstances be advisable; but on the whole the principle of relativity may be broadly accepted so far as economic precepts are concerned.

Passing from economic precepts to the body of positive doctrine which constitutes more distinctively the science of political economy, attention must be paid to the fact that economic doctrines vary in the degree of abstraction which they involve. Without professing to be able to draw any hard and fast line, we may adopt the suggestion made by W. S. JEVONS, and distinguish broadly between two stages of economic doctrine, which may be called the abstract and the concrete stage respectively (see article ABSTRACT POLITICAL ECONOMY). Concrete economics is not content with merely hypothetical results, but avowedly takes into account special conditions of time, place, and circumstance; and it follows immediately that the conclusions already arrived at with regard to the relativity of economic precepts apply equally to concrete economic theorems. For the more fully we have regard to special conditions of time, place, and circumstance, the more limited must be the applicability of our results. Many of the circumstances which exert an important influence on economic phenomena vary widely with the legal form of society and with national character and institutions; and even when the same forces are in operation there may be variation to an almost indefinite extent in the relative influence which they exert. The contrasts presented by mediæval and modern societies, and by contemporary oriental and European societies, considered in their economic aspects, are such as cannot possibly be overlooked. Many of the chief economic phenomena, such as RENT, PROFIT, EXCHANGE, have their counterparts on each side of the comparison, but are singularly unlike in many of their characteristics; and over and above this, as societies progress, new economic phenomena, practically novel in character, spring into existence. Consider, for example, modern problems of CREDIT and of INTERNATIONAL TRADE; or again, the relations between the modern factory operative and the modern capitalist employer. Less striking contrasts, but contrasts that ought not to be neglected, are observable when we consider different modern communities of the European type in respect of particular economic phenomena, such as the tenure of land, the mobility of labour, and so forth. In every case the extent of the divergence can be ascertained only by direct observation and comparison; and it may be remarked in passing that, as regards mediæval and modern societies, whilst there was formerly danger of the differences being insufficiently emphasised, there is perhaps at the present time more danger of their being exaggerated. The notion, for example, that during the middle ages the forces of competition were entirely inoperative, is far from being borne out by the facts.

The relativity of concrete economic doctrines having been admitted, a claim for universality may still be put forward so far as the more abstract principles of the science are concerned. These principles do not profess to set forth the full empirical reality. They are admittedly based on hypothesis and abstraction. They require therefore to be constantly qualified and limited, sometimes in one direction, sometimes in another, before they can serve for the interpretation and explanation of actual economic phenomena. At the same time, some at least of them are universal in the sense that they pervade all economic reasoning. The law of the variation of utility with quantity of commodity, and the principle that every man so far as he is free to choose will choose the greater apparent good, may be given as examples of fundamental economic principles, which, in the words of Jevons, "are so widely true and applicable that they may be considered universally true as regards human nature." There are many other principles, which, with due modifications, are applicable to economic phenomena under widely different conditions. Take, for instance, the LAW OF SUBSTITUTION (*q.v.*) in the form that where different methods of production are available for obtaining a given result, the one that can do the work the most cheaply will in time supersede the others, or the doctrine that facilities of transport tend to level values in different places, while facilities of preservation tend to level values at different times. Compare, again, the Ricardian law of rent as ordinarily stated, with the principle of economic rent in its most abstract and general-

ised form. The Ricardian law, so far as it claims to determine the actual payments made by the cultivators of the soil, is a relative doctrine, that is to say, it is based on assumptions, which, as regards both time and place, hold good over a limited range only. The theory of economic rent in its most generalised form, however, merely affirms that where different portions of the total amount of any commodity of uniform quality supplied to the same market are produced at different costs, those portions which are raised at the smaller costs will yield a differential profit; and there is now no similar limitation to its applicability. This principle may even be said to hold good in a socialistic community, for the differential profit does not cease to exist either by being ignored or by being municipalised or nationalised. To take a further illustration, there is a good deal of abstract reasoning in regard to the laws of SUPPLY AND DEMAND that has a very wide application indeed. These laws work themselves out differently under different conditions, and in particular there are differences in the rapidity with which they operate. Their operation may, however, be detected beneath the surface even in states of society where custom exerts the most rigid sway. In all these cases and others similar the principles involved and the modes of investigation employed have a significance and importance which it would be misleading to call merely relative; and hence as regards the more abstract portions of economic doctrine the principle of relativity cannot be accepted.

The relativity of concrete economic truths, together with the universality of fundamental economic principles, might be illustrated by reference to the writings of the classical English economists. The historical school have rightly taught us that the works of these economists can be fully understood and appreciated only if they are studied in close connection with the economic history of the times when they wrote. Frequently the assumptions on which their reasonings are based have a special relation to the actual circumstances of their time; or, even if this is not the case, the form in which their doctrines are cast, or the emphasis laid upon particular points, will often be found to be specially related to the economic conditions in the midst of which they wrote. It is, however, going much too far to regard their whole teaching as limited throughout by the character of relativity which belongs to some of it. Much of what they wrote will be valuable for all time, not merely because of the light which their doctrines throw on the phenomena of particular periods, but because the principles underlying their best work are not confined in their applicability to any narrow or limited sphere.

In connection with the general subject of relativity in political economy, a word or two may be added with regard to the relativity of economic definitions. Partly on account of the familiarity of much of its subject-matter, and partly for reasons connected with the growth of the science, political economy is for the most part limited in its nomenclature to terms already in common use. In different departments of economic enquiry, however, lines of distinction may need to be drawn at rather different points, and hence it is sometimes difficult to avoid the multiplication of technical terms, unless we are content to use the same terms in slightly varying senses in different connections. Thus, from the point of view of PRODUCTION it may be convenient to give a definition of WEALTH, not in all respects identical with the definition that is appropriate from the standpoint of DISTRIBUTION. Again, with special reference to its measurement, there may be advantages in defining wealth differently from the cosmopolitan, national, and individual points of view respectively. This procedure, that is to say, the frank adoption of the principle of relativity in framing economic definitions, has considerable weight of authority in its favour; but it is clear that, in so far as it is adopted, special precautions are necessary to avoid confusion. Further, economic definitions may be relative, not only to different points of view or different departments of study, but also to different stages of industrial development. Thus, in relation to the complex conditions of modern trade and industry, such terms as MARKET and MONEY may need different definitions from those that are appropriate in relation to more primitive conditions. Whilst, however, many economic definitions may be allowed to possess a relative or progressive character, this relativity cannot be extended to the ultimate analysis of the fundamental conceptions of the science. If these conceptions assume a somewhat different character in different connections, we shall still find something generic or universal in each one of them. Hence in the case of economic definitions as well as in that of economic doctrines, the admission of the principle of relativity must not be absolute or unqualified.

[For further discussion in connection with this article, see ABSTRACT POLITICAL ECONOMY; HISTORICAL METHOD; HISTORICAL SCHOOL OF ECONOMISTS. Reference may be made to Bagehot, *Economic Studies.*—Ingram, *History of Political Economy.*—Jevons, "The Future of Political Economy" (*Fortnightly Review*, November 1876).—Keynes, *Scope and Method of Political Economy.*—Knies, *Die politische Oekonomie vom geschichtlichen Standpuncte.*—Cliffe Leslie, *Essays in Political and Moral Philosophy.*—Schmoller, *Zur Litteraturgeschichte der Staats- und Sozialwissenschaften*]. J. N. K.

RELEASE is a general name for the waiver or renouncement of rights. An interest in

land is conveyed by release, if the effect of such conveyance is the enlargement of the estate previously held by the person to whom such interest is conveyed. Thus, if a leasehold interest in land is to be enlarged into a freehold interest, the lessor *releases* his interest in such land to the lessee.

During the first half of this century the usual form of conveyance of land was by "lease and release"; the person wishing to convey the land in the first instance granted a lease, and at the same time executed a deed dated a day subsequent to the lease by which he released his interest. This somewhat cumbrous method, which was introduced during the 17th century for the purpose of evading the provisions of the Statute of Enrolments, was simplified in 1841, and rendered unnecessary by the Real Property Act of 1845. Releases operating as conveyances are therefore much less frequent now than they were at the beginning of the present reign.

The most common use of the word "release" in modern times occurs in the case of trust funds being divided among the beneficiaries, who thus "release and discharge" the trustees from the trust property, "and all actions, proceedings, claims, and demands in relation thereto." A release of this nature is, however, ineffective, unless all the facts are fully set out in the recitals, and it is also advisable that the parties executing the release should be separately advised, so as to avoid the possibility of the release being set aside on the ground of the beneficiaries not having been in a position to form an independent judgment. E. S.

RELEGATIO. The Roman punishment of banishment to a particular place; not, like *deportatio*, entailing loss of civil rights.

E. A. W.

RELIEF. The relief, with the other incidents of feudal tenure, was introduced into England by William the Conqueror. Its origin is to be traced in continental usage, and its growth coincides with that of hereditary succession. Early grants of land seem to have been made for the lifetime of the recipient, but it soon became usual to renew the grant to the heir of a deceased occupant, especially if the heir were willing to pay a sum to his lord for such renewal. As the right of succession to land hardened into law, so did this customary payment on the part of the heir, which is known as *relevamentum* or *relevium*. Thus the relief differs from the Anglo-Saxon HERIOT, in that the former implies, and the latter does not imply, a suspension of ownership. But the two payments were so similar in respect of occasion and incidence that the Norman lawyers found it difficult to avoid confusion between them. All lands granted by the Conqueror to his Norman followers, or re-granted to English holders, were henceforth bound to pay a relief on a change of occupants, and the same condition was naturally enforced by the mesne lords in their grants to sub-tenants. The amount payable was at first very uncertain, and William Rufus and Ranulf Flambard found reliefs a convenient method of exaction. Church lands were free from the obligation of reliefs, as from those of wardship and marriage; but Flambard, in his endeavour to extend to the church the usages of lay fiefs, hit upon the plan of demanding a relief directly from the sub-tenants of a bishop on the occasion of a vacancy in the see. At the same time exorbitant reliefs were exacted from the heirs of royal tenants, the penalty for non-payment being forfeiture of the inherited estates. These exactions caused great discontent, and Henry I. sought to conciliate support by a clause in his charter, which runs: "If any of my barons, earls, or other tenants shall die, his heir shall not buy back his land as he used to do in my brother's time, but shall relieve it by a just and lawful relief; and in like manner the men of my barons shall relieve their lands by a just and lawful relief." From this time there was a constant struggle to obtain an exact definition of the "just and lawful relief," and gradually the royal claims were subjected, first to customary, and then to written, limitations. Glanvill, writing in the time of Henry II., states that the "reasonable" relief for a knight's fee is 100s., and for land held in SOCAGE one year's rent from the land; but the chief barons must satisfy the king according to the royal will and mercy. The author of the DIALOGUS DE SCACCARIO also tells us that the relief for the knight's fee is 100s., but that the heir to a barony must make his own bargain with the king. In *Magna Carta* the barons finally got rid of this remaining uncertainty. Art. 2 declares that the *Antiquum relevium* is £100 on an earl's barony or a baron's barony; 100s. on the knight's fee; and in other cases according to ancient custom. By the time of Edward I. the relief on a baron's barony had been reduced from £100 to 100 marks. In spite of the steady decay of feudalism, the crown retained its rights to reliefs and to the other feudal incidents until the time of the Stuarts. Under James I. Robert Cecil endeavoured to arrange with parliament for a commutation of these ancient but still lucrative rights for a fixed annual revenue, but the "great contract" was never carried through. During the rebellion and the commonwealth the crown rights and the machinery for enforcing them fell into abeyance, and it would have been preposterous to attempt their revival at the restoration. Accordingly, in 1660, the convention parliament passed the statute by which reliefs and other feudal payments were abolished and the hereditary excise was granted to the crown in their place.

[Stubbs, *Select Charters* and *Constitutional History*. — Pollock and Maitland, *History of English Law*, bk. ii. ch. i. § 7.—Round, *Feudal England*, pp. 308-311.] R. L.

RELIEF. See POOR LAW.

REMAINDER. The legal conception of a REMAINDER is dependent on the legal conception of an ESTATE (*q.v.*). An estate is conceived in English law as involving not only the ownership of lands, etc., but also the length of time for which that ownership will last. If a man holds land in *fee simple* his estate in that land is infinite in point of time; he may cut it in pieces of different time-lengths, and assign each piece to a separate person, who is said to possess his portion of the estate now, although he may not enjoy the land itself for years. After all the finite portions have been distributed, there will still remain a portion of infinite duration; this the original holder of the fee simple may keep for himself or assign to another; in the former case it is a reversion, and in the latter a remainder.

[For a more elaborate explanation see Sir Wm. Markby's *Elements of Law*.] A. E. S.

REMEDY (MINT). A term used to express the amount of variation permitted by law from the exact standard, either of weight or of fineness, of coins issued from the mint. Absolute conformity to the legal weight and fineness, in the case of every coin struck, is mechanically impossible, at the rate of speed at which coins are made. A reasonable margin of variation ("remedy") is therefore provided for by the coinage laws.

In the case of British imperial coinage, the remedies now in force are those fixed by the Coinage Act of 1891 (54 & 55 Vict. c. 72). They are set forth in the schedule to that act as follows:—

Denomination of Coin.	Standard Fineness.	Remedy Allowance. Weight per Piece. Imperial Grains.	Metric Grams.	Millesimal Fineness.
GOLD:				
Five-pound	11/12 fine gold, 1/12 alloy; or millesimal fineness 916·6.	1·00	0·06479	2
Two-pound		0·40	0·02592	
Sovereign		0·20	0·01296	
Half-sovereign		0·15	0·00972	
SILVER:				
Crown	37/40 fine silver, 3/40 alloy; or millesimal fineness 925.	2·000	0·1296	4
Double-florin		1·678	0·1087	
Half-crown		1·264	0·0788	
Florin		0·997	0·0646	
Shilling		0·578	0·0375	
Sixpence		0·346	0·0224	
Groat or fourpence		0·262	0·0170	
Threepence		0·212	0·0138	
Twopence		0·144	0·0093	
Penny		0·087	0·0056	
BRONZE:				
Penny	Mixed metal, copper, tin, and zinc.	2·91666	0·18899	None.
Halfpenny		1·75000	0·11339	
Farthing		0·87500	0·05669	

It will be seen from the above table that the remedy for the weight of the sovereign is 0·2 grain. The standard weight of this coin being 123·27447 grains, it follows that no sovereign may be issued from the mint which weighs more than 123·47447 grains, or less than 123·07447 grains. The remedy of fineness being 2 per mille, and the legal fineness 916·6, the metal of which a sovereign is composed must not be of a higher millesimal fineness than 918·6, or lower than 914·6. Though the entire range of variation thus permitted is not great, the extreme limits of remedy are seldom approached, especially in the case of gold coins. The verdict of the jury at the trial of the PYX (*q.v.*), held in July 1896, records that of the sovereigns then examined (coins struck during the preceding twelve months), the heaviest weighed 123·282 grains and the lightest 123·261 grains. The coin richest in gold proved to be of the millesimal fineness of 916·7, while the poorest only fell to 916·60, or but ·0006 below the exact standard prescribed by law. F. E. A.

REMITTANCE. The sending of funds from one place to another, whether in coin or bullion, in bank notes or drafts. R. W. B.

REMONETISATION means the renewed use of some metal for purposes (1) of currency, (2) or as a standard in currency. (1) Thus Frederick II.'s Sicilian solidus, the Florentine (1252) and English (1257, 1343-44) florins represent the remonetisation of gold in Europe. (2) If European nations opened their mints to unlimited purchase of silver, which should be coined so that mint values = commercial values, and then made the silver coins unlimited legal tender, this would be the remonetisation of silver (see DEMONETISATION; SILVER AS STANDARD). J. D. R.

RENAUDOT, THÉOPHRASTE (1584-1653) a physician and historiographer of France, who, through the interest of Richelieu, was appointed in 1612 general commissary of all the poor of the kingdom. Despite vigorous police ordinances, France and especially Paris were infested by legions of beggars, discharged soldiers, and persons ruined by the civil and foreign wars.

In 1630, Renaudot revived an idea originated by MONTAIGNE (*q.v.*) and obtained a licence "to open *Offices* or *Registers of Addresses* for the wants of all classes . . . and to practise or establish anything which might generally be useful or advisable for the regulation of the poor." His main object was to provide them with work through the agency of his *Bureaux*, after having in vain endeavoured to obtain employment for them, in cleansing the streets of Paris, a scheme he had been compelled to abandon by the Paris magistrates, eager at that time to oppose any project supported by the court. He explained his views in the *Inventaire des adresses du Bureau de Rencontre*, a very few

copies of which are still to be found in public repositories. Each entry in the registers cost only 3 sous, or for the poor was inscribed free. Renaudot also established, to assist the latter, his *consultations charitables*, and the first of the MONTS DE PIÉTÉ opened in Paris.

His *Traité des Pauvres* is lost. The success of Renaudot's *Bureaux* was such that he started in 1631 a *Gazette* to supply public news as well as the advertisements of the *Bureaux;* later on it took the name of the *Gazette de France*, and is the oldest French newspaper in existence. Renaudot also opposed the absurd medical theories then prevalent in the faculty of medicine at Paris, and sought to introduce instead the experimental method. He thus aroused an implacable animosity, which embittered the end of his life.

[Hatin, *Théophraste Renaudot* (1883) and *Histoire de la Presse*, vol. i. (1859).—Gilles de la Tourette, *Théophraste Renaudot* (1884).] E. CA.

RENNY, ROBERT (died early in 19th century) wrote a *History of Jamaica, with Observations on the Climate, Scenery, Trade, Productions, Negroes, Slave Trade, Diseases of Europeans, Customs, Manners, and Dispositions of the Inhabitants. To which is added an Illustration of the Advantages which are likely to result from the Abolition of the Slave Trade*, London, 1807, 4to.

The work is divided into two books; the first deals with the discovery and subsequent history of the island up till the close of the Maroon War in 1796, and the return of the governor, Lord Balcarras, in 1801. Book ii. treats of the climate, soil, scenery, and natural productions of the island; of the towns, churches, courts, trade, revenue, taxes, coins, and militia. Ch. iv. is divided into eight sections, each of which describes one of the commercial products of Jamaica. Ch. v. deals at some length with the history of slavery there; strongly emphasises the necessity of doing the negroes justice, and of setting them free. The author deplores the contempt which the white expresses for the coloured man. A. L.

RENOUARD, AUGUSTIN CHARLES (1794-1878), was born and died at Paris. He left the normal school during the first empire, and, devoting himself to law, he was, at the time of the restoration, much esteemed as a counsel in difficult cases.

About 1825 he published several works on moral and legal subjects, the most important of which is his *Traité des brevets d'invention*, 1st ed. 8vo, 1825; 2nd ed. 8vo, 1844. After 1830 Guizot took him up; he became a privy councillor, then a deputy, and finally a peer of France. In the chamber he introduced several laws, especially that on primary education, Guizot's highest title to fame. During this period Renouard published *Mémoire sur la statistique de la justice civile en France*, inserted in 1835 in Wolowski's *Revue de législation et de jurisprudence; Traité des droits des auteurs dans la littérature, les sciences et les beaux-arts*, 1838-39, 2 vols. 8vo, and finally, *Traité des faillites et banqueroutes*, 2 vols. 8vo, 1st ed. 1842; 2nd ed. 1844; 3rd ed. 1857. After 1848 Renouard practised again at the court of appeal. It was he who, in the name of justice, brought in an indictment against the author of the *Coup d'état* of 1851, which brute force alone prevented him from following up. He kept aloof from public affairs during the whole of the second empire, and during that time he published *Du droit industriel dans ses rapports avec les principes du droit civil sur les personnes et sur les choses*, 8vo, 1860. After 1871, having been appointed *procureur-général* to the court of appeal, he spoke several times and with great weight. In the speech which made most stir, and by which even Berlin was moved, he refuted the famous aphorism, *La Force prime le Droit*. We are also indebted to Renouard for publishing the *Mélanges de morale d'économie et de politique* of Benjamin Franklin, preceded by a notice of his life, 3rd ed. 18mo. In 1861 he was elected to the *Institut* (*Académie des Sciences morales et politiques*), and in 1876 he became a senator. In 1845 he was elected vice-president, and in 1865 president, of the Economic Society of Paris. A. C. f.

RENT

Rent, Basis of, p. 282; Rent does not enter into Cost of Production, p. 284; Rent of Ability, p. 285; Rent-Charge, p. 286; Rent-Charge, Mediæval, p. 286; Rent, Labour, Mediæval, p. 287; Rent of Land, p. 287; Rent, Sec, p. 289.

RENT, BASIS OF. "Rent," wrote RICARDO, "is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." "The income derived from the ownership of land and other free gifts of nature is called *Rent*"; is the form of definition adopted by Professor Marshall. Both writers take care to point out that the word is commonly used to cover payments of a different character. Moreover, the modern developments of economic analysis have shown that land is but a special and specially important member of a large class, and that the income derived from the ownership of special facilities of production not accessible to all, possesses economic characteristics which correspond closely to those of the rent of land. A growing custom of modern writers is to employ the word rent for the whole class. This course is not altogether unexceptionable, though it possesses conspicuous advantages for many purposes. In this article the reference to land will be retained, though the conceptions dealt with will be such as to have a much wider application. Such extension of their application is not to be understood as excluded by the restriction of the terms used to the problem of land-rent.

The basis of rent, as indicated in what precedes, is to be found in the fact that the product of equal outlays of effort or of capital under different conditions is by no means identical. In reference to land, one field may produce, under similar cultivation, 25, 50, 100, etc., per cent, more than another field of equal area, the soil of which is of a different nature, or whose advantages in other respects

are different. A difference of situation, affecting convenience of cultivation or access to markets, operates as effectively as a difference in the mechanical nature or chemical constituents of the soil.

The essential underlying basis of rent is this difference of return to equal effort, and the amount which rent can reach is measured by the amount of the difference. Clearly the doctrine, even so briefly stated as in the definitions quoted above, assumes the ownership of the productive facilities in question, assumes that they are not equally open to every producer in fact; and this carries with it the other point, that an indefinite extent of productive facilities of the most favourable nature is not available. The best is limited, and is made the subject of ownership. The necessity to utilise opportunities less favourable than the best existing brings the fact and degree of their superiority to the front, and gives it value.

As in the illustration used by Ricardo, we may suppose land of three qualities, numbered accordingly, to yield with equal employment of capital and labour:—No. 1, 100 quarters; No. 2, 90 quarters; No. 3, 80 quarters. So long as there is No. 1 land unappropriated and free to any one to use, no rent emerges. It is only when the needs of the community become such as to require the cultivation of No. 2 land, and, later, of No. 3, that rent appears. When the best land freely available is of No. 2 quality, the cultivator would get an equal return for himself by paying 10 quarters for the right to raise 100 quarters on No. 1 land, as by raising, rent free, 90 quarters on No. 2 land. Similarly, when the best land freely available is of No. 3 quality, the payment for the privilege of using No. 1 land might rise to 20 quarters; for using No. 2 land to 10 quarters; while whichever quality of land was used under such a scale of payments, 80 quarters would be the return to the cultivator's efforts which remained for himself.

The differences in the amount of labour needed to give equal results may be due to the necessity for the expenditure of considerable labour in conveying the produce to market, if the land be remote from the market for its produce. Thus, of two portions of land, A and B, on each of which 100 quarters is the return to the same expenditure of capital and labour, if the carriage of the produce of A to the market be covered by the sale of 2 quarters, while the carriage of B's produce absorbs the worth of 12 quarters, A will bear a rent of 10 quarters more than B. If B be no-rent land, A's rent will be 10 quarters.

Another view of the matter is not less important than this, since it brings out the importance of the law of DIMINISHING RETURNS, as applied to land in the determination of the rent of the land.

Let it be assumed that, when the whole of the No. 1 land is taken up, it is found that the expenditure of twice as much capital and labour as before on a plot of No. 1 land yields 195 quarters; that is, that the return is increased by 95 quarters. Capital and labour will thus, by the more intensive cultivation of No. 1 land, be able to procure a yield of 95 quarters, while, if expended on No. 2 land, but 90 quarters would be yielded. It will not, in this case, be necessary to resort to No. 2 land so long as the supply obtained by the more intensive cultivation of No. 1 is sufficient. Using the term "dose," after James MILL (see DOSES OF CAPITAL), to indicate the expenditure of capital and labour contemplated as yielding respectively 100, 90, and 80 quarters on the different qualities of land, we may now say that a dose of capital and labour can yield on No. 1 land, by more intensive cultivation, 95 quarters. This amount must therefore be sufficient to remunerate the cultivator who is induced to expend the dose for this return, or it would not have been expended. If it were insufficient, a single dose only, yielding its 100 quarters, would be expended on No. 1 land; if we assume that it is possible to regard labour and capital as applied in "indivisible" doses, for the purposes of the present argument. If 95 quarters remunerate the second dose, they will suffice to remunerate the first, and 190 quarters will remunerate the two doses, while 195 quarters are produced. The remaining five quarters may be exacted as the price of the privilege of using No. 1 land. Similar arguments apply to yet more intensive cultivation. Thus even without the necessity for assuming the existence of land bearing no rent, as a means of determining the level from which rent may be measured, a point from which to measure rent in any individual case is capable of determination, namely, the point at which, in the more and more INTENSIVE CULTIVATION of the land, the stage is reached at which the increase of return produced by the application of additional capital and labour to the land would just, and only just, be sufficient to make it worth while to apply such additional effort to the land.

Whether from difference in the nature or situation of different portions of land, therefore, or from different powers of response to effort expended on the same land varying with the stage of intensity of cultivation previous to the expenditure of this effort, the amount of rent and the reason for its existence rest on differential advantages for the application of this or that dose of capital and labour. If all land possessed equal advantages, and if the return to capital and labour expended on land were in accordance with the LAW OF CONSTANT RETURN, rent would not emerge.

The expression "original and indestructible powers of the soil," used by Ricardo, has given

rise to some destructive criticism of his theory. It is, perhaps, not necessary, though quite possible, to enter on a defence, necessarily somewhat lengthy, of the precise terms used. The essence of the doctrine of rent is not bound up with the adjectives in this phrase. Capital invested in improvements may alter the original character of the land. The inducement to make such an investment is afforded by the expectation of increasing the facilities for production which it offers so as to increase its returns sufficiently to yield at least interest at current rates on the investment. When the investment is made, however, it becomes difficult to differentiate between the original and acquired powers of the soil in many cases. The doctrines above enunciated may be applied to the improved land, if it be supposed that, in its cultivation, its actual powers are preserved unimpaired. The capital invested is as much bound up with the soil as its original qualities, and may conveniently be treated on the same basis.

The problem which has been dealt with here is, strictly speaking, the elucidation of the causes which determine the amount of a "producer's surplus," to use the phrase adopted by Professor Marshall, the said surplus being that which accrues to the producer by reason of his having the use of facilities superior to those of some of his competitors. Whether precisely this amount will be actually paid as rent will depend on the conditions of tenure of land and the relations between the various classes interested in agriculture at the time and in the place considered. If the owners of the land be in active and intelligent competition for tenants, and are unscrupulous in exacting the utmost possible payment from tenants, while tenants are also in active and intelligent competition to secure tenancies on the best possible terms, the producer's surplus on an average of years represents the utmost which tenants can pay without reducing unduly their own remuneration for labour and risk, and hence the most which owners can procure. It may be further observed that, as produce from one portion of land has been taken as the equivalent of that from another, the corresponding hypothesis is that the produce considered is sold in the same active market, so that the hypothesis of but one price for the same article may be reasonably made.

In regard to the rent of building land, the element of advantage of situation, important in the case of agricultural land, becomes the principal feature. In the case of mine rent, while partly determined by the facilities for extraction of minerals and their superiority to those elsewhere, the payment exacted is in part a charge for material actually carried away. The powers of the mine are not preserved unaltered, so that the case naturally differs from that of the hire of productive facilities which are not destroyed by being used. In part, nevertheless, the superior ease of obtaining minerals from some mines as compared with others causes a part of the rent to be due to this difference, though the main portion be the price of material carried away. Wherever, in the hire of agricultural land, the contract provides for improvement of the land, or for exhausting previous improvements, a similar feature is introduced there to that which is most prominent in mine rents (see RICARDO). A. W. F.

RENT DOES NOT ENTER INTO COST OF PRODUCTION.—This statement is commonly understood to imply merely that rent forms no part of that cost of production which is the measure of exchange value, that is, not average cost of production, but marginal cost of production. The theorem rests on the conceptions explained under the head Basis of Rent. A farmer, having contracted for the hire of land, is in the position that it is to his profit to expend any "dose" of capital and labour the return to which exceeds the cost of its application. He will, therefore, be induced to apply dose after dose, though the margin of surplus of return over outlay become narrower and narrower, so long as the margin is on the right side. The point at which he will cease to cultivate more intensively is determined by the vanishing of this margin. The "marginal dose" only increases the return by enough to cover the expenses of its application. The increase of return thus procured contributes nothing to rent, rent does not enter into its COST OF PRODUCTION. Although the expenses of the producer may contain—as against the whole crop—the stipulated rent, the "marginal production" is sufficiently encouraged if its price leave no surplus for rent, but merely covers other expenses. To quote the well-known passage of Ricardo, "Corn is not high because a rent is paid, but a rent is paid because corn is high." A rise in price of produce results in a smaller return being sufficient to remunerate the cultivator for applying a dose of capital and labour. This leads to increasing intensity of cultivation and a rise of rents.

From the other standpoint, that of the existence of no-rent land, which may be at any distance from the market, the fact that such land comes under cultivation proves that the cost of production of its crops are covered by their price. Rent forms no part of their cost, therefore it forms no part of the price of the whole market supply.

The price may, nevertheless, be affected by rent, if the existence of rent operate to stint the supply of the produce of land, that is, if the owners of land be able to command a price for the privilege of cultivating even the poorest

land. Such a "monopoly-rent" may affect the price of the commodities produced under its influence. The same principles, too, come into play as the result of the fact that land may be applied to alternative uses. If for one of these uses certain land be sufficiently productive, in comparison with other land actually in use for the same purpose, to command a rent, the condition of its use for any other purpose is that it should pay at least as large a rent in the latter as in the former case. If it be less productive than the worst land already in use for this other purpose, it cannot be economically used until the price of the product in question rise to a sufficient height to enable it to yield not only the expenses of applying the necessary labour and capital, but also the rent obtainable by the assumed alternative use of the land. The cost of production of the most expensive portion of the supply does in this case include rent.

In general it is true that rent may be reduced and the margin of cultivation raised if fresh sources of supply, involving a smaller cost than that involved in the use of some of the sources actually in use, be brought into the market. If these fresh sources of supply be held out of use on account of their yielding a greater rent for some other purpose, the fact of rent does stint supply and raise price.

The introduction of the consideration of such an indirect influence of rent on price appears to be of considerable importance. It is from the treatment of land as if yielding a produce of one kind only that its influence is lost sight of in the general enunciation of the doctrine. It remains true, however, that if the cultivators of land were set free from their obligation to pay rent, such a change would not introduce motives tending to divert land from the purposes where it yields the greatest surplus to the producer over the expenses of its cultivation. Thus though the fact of alternative uses for land does reduce the supply of any one of its products below the amount which it might reach if all land were capable of use simply for the supply of this product alone, the abolition of the obligation to pay rent would not affect the relative supply of different commodities, except in so far as the rent is a true monopoly rent.

[Special reference may be made to Ricardo's *Works;* to F. A. Walker's *Land and its Rent;* and to Marshall's *Principles of Economics*, bk. v. ch. iv., as well as to the article on COST OF PRODUCTION, where some important points, not repeated above, are dealt with. Most leading authorities on economic theory have contributed some chapters to the discussion of the theory of rent.] A. W. F.

RENT OF ABILITY. In analysing the rewards of efforts and abstinences made for the satisfaction of wants under modern social conditions, economists have to reckon with that residual element of returns which is due to peculiar advantages of nature or the juncture of events, and not to any additional effort or abstinence. In agriculture this surplus revenue is called RENT, it being really accidental in economic theory whether it is handed over by farmer to landlord or appropriated by a freeholder. The term "rent," however, as defined in economics, cannot justly be confined to agriculture only, but, as N. W. SENIOR proposed, should be, and is indeed more or less, used to cover all cases of this residual element of reward which "nature or fortune bestows" in the shape of an exceptional or "differential" profit beyond the given average rate of remuneration. Rent of land thus appears as only a species, if "the most distinct and impressive" species (see von MANGOLDT), of a genus of reward, the conditions of which are those of a natural monopoly with a demand temporarily or permanently in excess of the supply.

In land-rent those conditions are superior natural fertility and advantages in connection with the disposability of produce; in other species of rent they are "extraordinary qualities of body and mind" (SENIOR, see below) to which may be added those accidents in demand or fortunate contingencies in time and space now classed as *Conjunctur*. Usually both sets of conditions are requisite. The inventive faculty that brings out a patent just when the public taste is amenable, the organising ability that can push an enterprise in advance of competition on the short-lived tide of public credit, the singer who, with a peculiar charm in organ or appearance, draws crowds while a possibly greater artist transcends the popular discernment, the author of a book abreast with, but not ahead of the age, the strategic genius launched on a military career just when a war breaks out—all that is conveyed by the expression "time and the man"—are cases where the surplus revenue, analogous to rent if not so-called, appears. And, as in agriculture, the difference is merely accidental, if in one case the owner exploits his own sources of rent, in another farms them out.

For the most part economists have preferred to class this residual reward under profits, only pointing out its analogy to rent derived from land. Mill refers to it as "cases of extra profit analogous to rent"; von Mangoldt, as entrepreneur's rent or as *Seltenheitsprämie;* Walker, as "profits partaking of the nature of rent"; Marshall, as a species of "quasi-rent" specially prominent in profits of business men; Nicholson, as "*Conjunctur*-profit" (see CONJUNCTUR). Yet it does not strictly fall under earnings of management, since it is not a monopoly of managers, and is, strictly speaking, an unearned increment of reward. Nor can it be claimed as interest unless what has been called

personal wealth be ranked as capital, for it is not the reward of capital invested in developing rare ability. To get extraordinary advantages in training may indeed be viewed as a lucky conjuncture for the talented youth. But for purposes of analysis, a distinction should be drawn between such good fortune and the sacrifice incurred by both parent and child in availing themselves of the best possible opportunities of education.

However classified, rent of ability and of fortunate contingency is a factor which under a system of competition militates ever more and more against any tendency to equality in returns, whether these are called wages or profits. The greater the investment of capital in the training of natural abilities, the more general the opportunities to cultivate the same, the more "differential" becomes the profit of those who in themselves and in the turn of events possess that species of monopoly analogous to that arising from the possession of the most remunerative portions of the earth's surface. For a pianist to be offered in England a thousand guineas in remuneration for one evening's display — as happened recently — would some years ago have been an impossibility.

On the first appearance in economic literature of this metaphor, see BAILEY, S., ON VALUE.

[Senior, *Political Economy*, 1850, p. 91.—Mill, *Political Economy*, bk. iii. c. v. § 4.—Von Mangoldt, *Die Lehre vom Unternehmergewinn*, 1855, p. 109.—Walker, *Political Economy*, § 307.—Sidgwick, *Principles of Political Economy*, 1st ed. bk. ii. c. ix.—Marshall, *Principles of Economics*, 3rd ed. bk. vi. c. viii.—Nicholson, *Political Economy*, 1893, i. p. 411.] C. A. F.

RENT-CHARGE. The payment of an annual sum is frequently secured by a charge on land belonging to the promisor. Such a charge is called a "rent-charge," and may, since the coming into operation of the Stat. 4 of Geo. II. c. 28, § 5, be enforced by DISTRESS (*q.v.*) in the same way as a rent reserved in a lease, whether the power of distress be expressly given by the deed creating the charge or not. A rent-charge granted otherwise than by will or marriage settlement is not binding on subsequent purchasers unless registered in accordance with the provisions of 18 Vict. c. 55, §§ 12 and 14. E. S.

RENT-CHARGE, MEDIÆVAL. The purchase of a rent-charge (*rent*, *census*, *Zins*) was one of the methods of investing money most frequently resorted to during the later middle ages. From the transfer from one person to another of the right to receive a rent already due the step was but a short one to the creation of an altogether new rent-charge, for the express purpose of raising money by the sale of it. At first, possibly, such charges were laid only on agricultural land; but the plan commended itself to townsmen; and the creation of rent-charges on town lands and even on town houses and shops became very general. It early came to be the practice to specify in the deed of sale the sum at which the seller could redeem the charge: and it was frequently enacted by civic or territorial authorities that all charges should be redeemable at so many years' purchase; so that there grew up in every district a current rate of return upon investments of the kind.

The practice would seem to have arisen spontaneously, and to have been by no means a mere evasion of the prohibition of usury. When brought before the attention of theologians and canonists, as in the cases submitted to Pope Martin V. in 1425 and Pope Calixtus III. in 1455, no doubt was felt as to its legitimacy, on the following conditions: that the charge was a *census realis*, *i.e.* was attached to some definite and permanent property of such a nature as to be a source of permanent income (*res frugifera*); that the person subject to the charge retained the right of redemption, but the recipient had no right to compel a return of the purchase money; and that the rent did not exceed a fair percentage upon the purchase money,—as to which last point the ecclesiastical authorities were ready to accept current usage. The existence of a "*real*" security, which, if transferred, carried the obligation with it, and the interminable character of the investment, so far as the investor was concerned, were the two features which were held to distinguish the contract from a mere *loan*. But Nicholas V. in 1452 permitted the people of Aragon and Castile, in order to escape the greater evils of usury, to make rent contracts based on their movable property, or indeed simply on their general credit, the so-called *census personales*; and such contracts were defended, outside Spain, by several eminent theologians of the sixteenth century. The return of Pius V. in 1568 to the earlier and severer view was too late to restore old conditions. But the theoretic discussion of the subject lost all interest, as the practice itself was gradually abandoned in favour of the freer form of investment rendered possible by the development of the theories of INTEREST and PARTNERSHIP (*q.v.*).

[The best history of mediæval practice is probably to be found in Max Neumann's *Geschichte des Wuchers in Deutschland* (1865), though it suffers under the twofold defect of maintaining that the practice was peculiar to Germany, and that it was opposed to canonist doctrine. W. Endemann, *Studien in der romanisch-kanonistischen Wirthschafts- und Rechtslehre*, vol. ii. (1883), enters at length into the canonist discussion of the *Rentenvertrag*. On these works is based the account in Ashley, *Economic History*, vol. i. pt. ii. (in Amer. ed., vol. ii.), §§ 66, 74, 75. The German and French mediæval law are given in Schröder,

Lehrbuch der deutschen Rechtsgeschichte, 2nd ed. (1894), 696; and Viollet, *Histoire du droit civil Français*, 2nd ed. (1893), 679-683, respectively.]

W. J. A.

RENT, LABOUR (Mediæval). Under the manorial system of agriculture, the lord's portion of the estate was cultivated by the compulsory labour of the tenants, under the supervision of the bailiff. Such services were perhaps, even when valued in the accounts in terms of money, rather payments incidental to tenure than economic rents in the modern sense. Compulsory services, paid for with food or money, or both, are frequently met with, but unpaid labour was more usual. It was of two main classes, fixed "week-work," and unfixed "boon-work" or "*precariæ*"; the former was, on the whole, but not always, or in all places, required of unfree tenants only, while free and unfree, socager and villein alike, had to perform special services, boon-work, when called upon, and particularly at harvest-time. In cases where an unlimited amount of week-work might be demanded, it seems probable that the tenant was exempt from boon-work, but even the latter tended to become fixed, though remaining occasional. Every service which the lord of the manor needed might be required of the tenants, but the commonest were ploughing and carriage. The process of commutation of services for money rents no doubt began very early, it is impossible to say how early; but the labour rent system was not seriously broken down until the 13th or 14th century.

[(1) Original documents: Thorpe's *Ancient Laws and Institutes* (*Rectitudines Singularum Personarum*).—*Domesday*.—*Domesday of St. Paul's*, ed. Hale.—*Cartularies* of religious houses, (full list of these and other documents in Ashley, *Econ. Hist.*, vol. i. pt. i., authorities prefixed to ch. i.). (2) Early legal writers: Bracton, Glanville, Fleta, Littleton. (3) Modern writers: none of importance before Seebohm; subject scarcely touched by Kemble. Seebohm, *English Village Community*; for details of services, ch. ii., for early labour rents, ch. v., for Roman instances, ch. viii. sect. vii. x., and ch. x. sect. vii., viii.—Vinogradoff, *Villainage in England*, esp. Essay ii. ch. iii.; many particulars added to the manorial picture first clearly drawn by Seebohm.—Ashley, *Econ. Hist.*, vol. i. pt. i. ch. i. for clear sketch of results of modern research.]

E. G. P.

RENT OF LAND. A. Smith summed up the best views of his time with regard to "the rent of land," when he described it as a compound of two elements—interest on improvements and payment for what Ricardo afterwards called "the indestructible resources of the soil"; or A. Smith's "original," and Mill's "economic" rent. This last rent is, according to A. Smith, "a monopoly price,"—the effect and not the cause of the price of a commodity (i. xi. *init.*). His language is not always consistent, and he does not analyse the nature of this monopoly, but three of his illustrations imply a correct though incomplete analysis. The first is taken from his own experience, and is the lease of a foreshore. The next is a historical generalisation—"every improvement," he says, "in the circumstances of society, tends either directly or indirectly to raise the real rent of land" (i. xi. *fin.*); and takes us back to Locke's belief that high rents mean prosperity, and should therefore be an object of legislation (*Works*, ed. 1824, vol. iv. p. 69), (Tooke, i. 24), and it takes us onward through M'Culloch's famous table (edition of A. Smith, p. 452), to H. George's *Progress and Poverty*; and it also reflects the physiocratic view that rent is a "produit net," a view which is still expressed when economists write of rent as "a residue" or as "an excess of value above the cost of production." This half-truth will not save its advocates from error; nor will its opponents attain truth without it. A. Smith's third illustration is practical, and is contained in his suggestion that a special rent-tax would, if variable and moderate, fall exclusively on landlords, and would not discourage industry, so that "the real revenue of the great body of the people might be the same after such a tax as before" (v. 2 *fin.*). Attempts to realise this idea by tentative fiscal measures on a small scale, and, best of all, subject to local control, have proved successful; thus Giffen (*Essays in Finance*, i. 252) points out that "rates" are just such a land-tax, and have as a matter of fact kept pace with the increase of the unearned "Mehr-Werth" of land during the past fifty years, while the French "contributions foncières," which were apparently Smith's model, advanced at a far slower rate under like conditions. On the other hand, if A. Smith's idea is interpreted by an heroic "impôt unique," designed to secure all economic rent to the state, on the ground that individuals ought not to reap what they did not sow—such a scheme is foredoomed to failure; because any attempt to draw a hard and fast line between "economic rent" and "interest on improvements," is hopeless. Here are three attempts; Giffen said that at the then rate of increase (1871) land then worth £150,000,000 would in thirty years be worth £100,000,000 more, half of which would perhaps be unearned (*Statistical Essays*, i. 258). Caird in describing the increase of landlord's property from £55,000,000 annually in 1857 to £66,000,000 annually in 1875, estimated the unearned at ¼ths of the whole increment during that period (*Landed Interest*, p. 97). Leroy-Beaulieu (*Répartition des Richesses*, 1888, p. 119), following more or less Carey's *Past, Present, and Future* (1848), and Hippolyte Passy's *Des*

Causes de l'Inégalité des Richesses (1848), thinks that economic rent is already at vanishing point; but as he bases his thesis on the supposition that capital invested on improvements should bear interest (compound?), for 2000 or 3000 years, his arguments do not claim much weight. Similarly German princes (Roscher, *Geschichte der Nat.-Oek. in D.*, pp. 485, 631) and Indian administrators (Baden-Powell, *Land Revenue*, p. 179) have been baffled by the insuperable difficulties of valuing the "produit net" for the purposes of an "impôt unique." In any case, doctors disagree on the matter, and the wisdom of A. Smith's "variable," "moderate," and "might," is conspicuous in comparison with proposals, such as that of Mill's "Land Tenure Reform Association" (1870), to take the whole future "unearned increment" in taxation.

In what then has A. Smith's view been advanced by his successors? First, deductively by the so-called Ricardian theory of rent, discovered by Dr. Anderson in 1777 and 1801, re-stated by Malthus and West in 1815, and finally by Ricardo in 1817. This theory, so far as it states that the amount of rent of a situation depends upon its "differential advantages as compared with that situation where a given pursuit just pays," suggested the idea of "marginal utility" which is the foundation of the law of value, as stated by Jevons and Marshall; and added even more to the elucidation of "value" than of "rent." Secondly, there is the truth, partly deductive, partly inductive, emphasised by Ricardo and Mill, that improvements in mechanism and locomotion increase supply, and so send rents down until an increased demand sends them up again; to which Carey added that as civilisation goes on suitable soils are specialised to suitable growths, and new fertile lands, like Laveleye's "polders," are discovered; a process which produces the same effect as any other improvement (Carey, *Principles of Pol. Econ.*, 1837). Thirdly, there are several inductive additions to A. Smith, which are equally additions to Ricardo. (1) Ricardo's hypothesis that land always remains in cultivation which only pays wages and not rent, is as incorrect a statement of fact as A. Smith's guess that the opposite was necessarily the case with regard to agricultural land (see Roscher's *P. E.*, § CL., *n.* 2). (2) Ricardo overrated advantages arising from fertility, and forgot J. B. Say's maxim "L'éloignement équivaut à la stérilité," a maxim which at present determines English rents. Thus in 1881, Caird estimated landlords' improvements at £15 an acre (*Landed Interest*, p. 56), *i.e.* 10s. per annum (if his usual estimate of thirty years' purchase-value applies), and their "protection from cost of freight of wheat" at 42s. per annum per acre (*British Land Question*, p. 16). This would make economic rent vary, with the cost of freight, between 32s. per acre and zero, so far as wheat lands were concerned. (3) Cairnes's proof that Australian rents have raised prices contradicts Ricardo's view that rents never affect prices. Walker points out (p. 41) that Cairnes's exception only applies where the state is landlord, and rent is therefore a tax. But could not landlords combine to tax a community, or portion of a community? And is the distinction between taxes which may, and rents which may not raise prices, quite clear? Seebohm, whose figures must be received with caution, at all events proves that the same sort of mediæval English impost branched out into landlords' land-tax and farmers' rents (*Fortnightly*, January 1870); and according to Thorold Rogers farmers' rents were in no sense competitive before the 17th century. Again, the Devon Commission, 1845, proved that the effect of competition in Ireland was that impossible, and not merely as economists supposed the highest payable rents were habitually offered. Again, in British India the land revenue is universal, and yet the best administrators are unable to tell whether it is to be classed as a rent or as a tax; and those who collect it are sometimes treated like landlords subject to land-tax, sometimes like lessees who have under-tenants, and sometimes like excisemen who deduct their own pay (Baden-Powell, *l.c.* p. 49). Considerations such as these narrow the applicability of the doctrine of "economic rent," and suggest that rent may after all turn out to be more often than not a tax in disguise. (4) Ricardo's implied doctrine that in the distribution of wealth the rent-receiver is the residuary legatee of the capitalist and wage-earner, is ably combated by Mr. Hobson in his essay on the three rents (*Econ. Quarterly*, April 1891). His point is that interest and wages rise in the same sort of way as so-called rent. We may answer: "Yes, but not at the same rate." Thus beginning with the settling down of prices after the discoveries of precious metals in the new world:

Year.	Wages per week. s.	d.	Rent per acre. s.	d.
1650[1] at least	4	0	5	6[2]
1770	7	3	13	0[3]
1878	14	0	30	0[3]

Or to take a shorter period:—Wages rose 34 per cent, rent 100 per cent, between 1770 and 1850-51 (Caird's *English Agriculture*, 1850-51, p. 475). What is the reason of the extra pace at which rent runs, when once wages and rent move? Some will point out that during the last three centuries rent began to include

[1] Th. Rogers, *Hist. of Agr. and Prices*, vol. v. ch. xxiii.
[2] *Ibid.*, v. 804, as to 1625; Davenant on *Trade*, p. 219, followed by Prothero in *Pioneers, etc., of English Farming*, app. xi. as to 1688.
[3] Caird's *Landed Interest*, app. p. 177.

"profit upon capital laid out in improvements" to a far greater extent than previously, and that this accounts for the difference; others, alleging that 5s. 6d. rents represent a greater rise on mediæval rates than the current rate of wages at that time (Th. Rogers, *l.c.* v. 815), attribute this phenomenon to the superior agility of the landlords. Perhaps both causes were at work. Anyhow the wisest economists treat these and similar questions historically, and admit that hitherto history supplies results which do not justify confident predictions as to the future. J. D. R.

[In addition to the above-mentioned references to Caird, Giffen, Prothero, Thorold Rogers, A. Smith, etc., see L. Brentano, preface to *James Anderson, Drei Schriften über Korngesetze und Grundrente* (1893); E. Cannan, "Origin of the Law of Diminishing Returns" in *Econ. Journal*, ii. 53.—E. de Laveleye, *Primitive Property*, transl. Marriott (1878).—R. E. Prothero in *Social England* (1894), ed. H. D. Traill.—W. Roscher, *Political Economy*, transl. Lalor (1878), bk. iii. ch. ii.—F. A. Walker, *Land and its Rent* (1883).]

RENT SEC. A rent secured by rent charge not expressly giving a right of distress (see DRY RENT). E. S.

RENTAS ESTANCADAS, Spanish state monopolies for the production and sale by government of tobacco, salt, stamped paper, etc. The state monopolies of lead, brimstone, gunpowder, and quicksilver were called *rentillas*. The earliest state monopolies were created in 1632. E. Ca.

RENTE (Fr.). In primitive times, the annual fee paid by the vassal to the seigneur, or the tenant farmer to the landlord; now almost exclusively applied to the interests on the consolidated debt or *rentes sur l'État*, the word *loyer* being employed for the hire of land or buildings. The consolidated public debt dates from the creation of the GRAND LIVRE (*q.v.*) in 1793. The total nominal capital then amounted to 2,556,060,000 francs (£102,242,400), which increased to 3,494,320,000 francs (£139,772,800) in 1797, when two-thirds of the debt was paid off by ASSIGNATS or national bonds of little or no value, and the remainder was refunded under the designation of consolidated thirds. The nominal capital was thus reduced to 1,164,773,333 francs (£46,590,933), the rate of interest at 5 per cent remaining unchanged. In 1814, at the first abdication of Napoleon, the debt had only increased to 1,226,152,740 francs (£49,046,109). The borrowing during the restoration for the liquidation of the empire and the two invasions, had raised the debt in 1830 to 4,426,297,611 francs (£177,051,184). Down to 1825 the rate of interest had always been 5 per cent. In that year the first 3 per cent rentes were created for payment of the indemnity to partially compensate the royalists and *suspects* whose property had been confiscated during the revolution and sold for the benefit of the state as *biens nationaux*. The sum thus raised is known in history as the *milliard des émigrés*, and the operation was combined with an optional conversion of the existing five per cents into threes at 75, or four and a halfs at par, guaranteed for ten years against any further reduction of interest. The conversion was only accepted for a small portion of the debt, and a 4 per cent loan having been issued in 1829, four different stocks in rente existed down to 1852. In that year there was a compulsory conversion of the five per cents by reimbursement, with the option of an exchange for four and a half per cents. The next conversion in 1862 was an optional one without reimbursement. Holders of four and a half and four per cents were offered in exchange three per cents to produce the same amount of rente or annual interest on payment of a premium called a *soulte* of 5 francs 40 cent for each unity of 4½ per cent rente, and 1 franc 20 cent for the four per cents. The conversion was accepted for about three-fourths of the two stocks in circulation, and the *soulte* produced a sum of 157,820,296 francs (£6,312,811) to the treasury without any increase in the annual charge, but at the cost of a considerable augmentation in the capital of the debt. After this operation there still remained in circulation 38,443,707 francs of 4½ per cent in rente or interest, and 453,027 francs in four per cents. Between 1854 and 1859 four loans were issued in 4½ or 3 per cent stock at the option of the subscribers, and from the latter year down to the war of 1870 all the creations of rente were in three per cents. In October 1870 the government of national defence raised a loan of 250,000,000 francs nominal in London in 6 per cent bonds at 85. This loan was to be paid off by annuities in thirty-four years, and did not give rise to any creation of rente. It was reimbursed in 1875 by an appropriation of 14,541,780 francs of rentes belonging to the savings' banks, and held by the *Caisse des Dépôts et Consignations*, which received an annuity of 17,300,000 francs for interest and redemption for thirty-nine years. The bondholders obtained the same interest of 6 per cent as before in 3 per cent rentes, but, as in 1862, had to pay a *soulte* which produced to the treasury a bonus of 60,000,000 francs. The war indemnity loans of 1871 and 1872 increased the capital of the consolidated debt by 6,720,032,100 francs (£268,801,284) in five per cents, which were reduced in 1883 to four and a half per cents, and again in 1894 to three and a half, with a guarantee against any further reduction for eight years.

Originally all rentes were inscribed into names in the "grand livre," but in consequence of complaints of the formalities required to obtain

payment of the interest in the provinces or transfers of the capital, a law of 1831 authorised the creation of bonds to bearer with coupons, and in 1864 a new category called *rentes mixtes* (mixed) was authorised, the capital of which is inscribed but with certificates carrying coupons for the payment of interest. The sheets of coupons of the three and the three and a half per cents are for five years, and those of the *rentes mixtes* for ten years, after which they require to be renewed. Money being required in 1878 for M. de Freycinet's great scheme of spending four milliards (£160,000,000) in ten years on railways, roads, canals, and improvements in navigable rivers, another class of rentes was created by M. León SAY namely, that of redeemable three per cents, the capital to be reimbursed in seventy-five years. This loan was issued as required in 175 numbered series for the drawings according to a table of redemption, the number of series to be paid off annually to increase progressively. There are no redeemable three per cents in *rentes mixtes*. A nominal sum of 4,070,690,000 francs (£162,827,600), which produced 3,286,580,884 francs, was thus raised between 1878 and 1884, but the system of redeemable rentes was abandoned in 1888, when a new loan of 500,000,000 francs was raised in ordinary three per cents as in all subsequent borrowings. The remainder of the old 4½ and 4 per cent outstanding from the conversion of 1862 was refunded in three per cents in 1877, and only three classes of rentes ordinary and redeemable 3 and 3½ now remain (1897) in circulation.

Rentes enjoy certain privileges over other classes of public securities. They are exempt from all taxes on capital or interest excepting those on succession and donations, and in the numerous schemes put forward for a general income tax their authors have invariably proposed to exclude rentes for the reason that, as the government had promised a certain rate of interest it would be a breach of faith towards the public creditor to levy a tax on the interest. Governments have also been influenced in exempting rentes by the consideration that future loans would have to be issued under less favourable conditions if the interest was exposed to taxation. A claim for the capital of rentes is not barred by lapse of time, but the interest cannot be claimed after five years from the date for payment. Rentes cannot be the object of a judicial seizure, and an injunction to suspend payment of interest is not allowed. They are expressly exempted from the operation of the law of 29th June 1872, relative to lost or stolen public securities. The bourse tax of five centimes per thousand francs paid by both buyer and seller in the same negotiation is also reduced to one-fourth of that rate for dealings in rentes. The smallest inscription of inscribed rentes admitted is three francs in interest for 3 and 3½ per cent; if to bearer, three francs in 3 per cent and two francs in 3½ per cent. Bonds of the redeemable threes are for 15 francs interest or 500 francs capital and multiples of the same. The capital of the three classes of rentes in circulation is about 25 milliards of francs (£1,000,000,000), but this does not constitute the total public debt of France, which, with the floating debt and the annuities capitalised, is estimated at over 30 milliards (£1,200,000,000). The number of inscriptions of inscribed rentes and bonds to bearer is about 4,500,000, but many *rentiers* or fundholders possess several inscriptions or bonds. The number of holders of rentes is believed to be about two millions. In no country is the public debt so widely disseminated among all classes of the people as in France.

[*Annuaire des Agents de Change.—Dictionnaire des Finances.*—Alph. Courtois, *Manuel des Fonds Publics* and *Tableaux des Cours des Principaux Valeurs depuis 1797.*—A. Neymarck, *Le Morcellement des Valeurs Mobilières* and *La Rente Française, son origine, ses développements.—Compte général de l'Administration des Finances.*]

T. L.

RENTLESS LAND. See RENT; RICARDO.

REPARTITION, IMPÔTS DE. See QUOTITÉ.

REPRODUCTIVE INDUSTRY. See PRODUCTIVE, THE TERMS, Articles on.

REPUDIATION, UNITED STATES. This term, as commonly used in the United States, refers to the refusal of certain commonwealths and cities to redeem bonds issued under their respective authorities. Only once has the national government declined to pay in full its obligations, and that was at the beginning of its existence, in providing for the redemption of the continental currency issued during the revolution at a rate of 1 : 100 of its face value. The integrity of states and cities has not, however, been so strictly kept, partly because of the financial and commercial confusion incident to the establishment of new communities, and partly because of constitutional and political reasons not always clearly understood by foreign investors. Owing to the strong "states' rights" feeling existing in the United States and a desire to protect the dignity of the federating commonwealths, an amendment to the constitution of the United States (the eleventh, 1798) was adopted providing that "the judicial power of the United States shall not be construed to extend to any suit in law or equity against one of the united states by the citizens or subjects of any foreign state."

[The history of repudiation, its causes and remedies proposed, is very fully treated by William A. Scott in *The Repudiation of State Debts*, New York, 1893, p. 325. For State Repudiation see Sidney Smith. Repudiation has also been practised in other countries with disastrous results to their credit.]

D. R. D.

REQUISITES OF PRODUCTION. See PRODUCTION, INSTRUMENTS OF.

RES NULLIUS. A term of Roman law used to denote any object which has no proprietor, either because it has never been acquired by any one, as a wild animal at liberty, or a coloured pebble washed up by the sea, or because the proprietor has deliberately relinquished his right of property in it, *e.g.* a pair of worn-out shoes thrown on the roadside.

F. C. M.

RESERVE. The reserve of a bank is essential to its safety, but the amount must be left to the discretion of its managers. Few would be inclined to hold now the opinion of RICARDO, who, in his evidence before the committee of the House of Commons on cash payments in 1819, said, "I should think that a reserve of *three millions* would, under good management, be amply sufficient upon a supposition of *twenty-four millions* of Bank of England notes in circulation" (Tooke's *History of Prices*, vol. iv. p. 477, note).

The reserve of the Bank of England has of recent years been far larger in amount than the amount contemplated eighty years since. The average for the year 1894 was £25,800,000; for 1895, £29,900,000; for 1896, £34,600,000; and for 1897, £25,152,800. This sum, which, though nominally described as "notes," really consists of specie, represents a very large part of the reserves of the other banks of the country, which at times probably even exceed the amount of the reserve of the Bank of England. The "cash in hand, at call and at short notice," held by the banks of the United Kingdom at any usual time, may in a regular way amount to about £200,000,000. This sum includes the "till-money" of the banks, which is no doubt considerably larger now than in former years.

The natural objection on the part of those who have the management of banks to allowing any part, more than is actually necessary, of their deposits to remain "idle money," accounts for the smallness of the amount held in reserve, but there are many signs that an increase of it is very desirable.

[See *Banker's Magazine*, April number, 1894-1898.]

RESERVE LIABILITY. See LIABILITIES ON SHARES.

RESERVES (BANKING). The banker's cash reserve is that portion of his resources which he holds uninvested. In ordinary times the daily receipts may be roughly reckoned to provide for the day's demands, but there is the possibility of extra requirements, and for these a fair provision of cash in hand is necessary. In London the cash in hand includes, and mostly consists of, the balance at the Bank of England; with country bankers the cash reserve is largely kept on balance with their London agents.

The banking reserve held by the Bank of England consists of the bullion and coin in the banking department, which is really the "till-money" of the bank itself, and of the notes in hand in the same office. As these notes can be immediately exchanged at the issue department for gold, the reserve is practically held in gold.

It is not possible to lay down a proportion which the cash reserve should bear to the deposits. The experience of the banker can alone decide what is necessary or desirable, and this experience differs in different localities, and in different classes of business in the same locality. The ratio of the reserve of the Bank of England has been materially raised in recent years, either from prudential reasons, or because of the bank's loss of command of the market.

In 1885 it was	Highest	52·51 per cent
	Lowest	32·98 ,,
	Average	44·93 per cent
In 1894 it was	Highest	70·96 per cent
	Lowest	54·87 ,,
	Average	62·97 per cent

In the same years the cash reserve held by the London joint-stock banks having businesses in London only, was, in 1885, 15·3 per cent; in 1894, 16 per cent. Besides the cash in hand there is a second line of cash reserve in money at call (see LIQUID ASSETS). In the national banking system of the United States the proportion of reserve is prescribed by law, and must consist of specie, legal tender notes, or gold and silver certificates; the ratio ranging from 15 per cent to 25 per cent; the former being for banks in the provinces, who may reckon therein their balances with agents in the reserve cities (see BANKS, NATIONAL).

R. W. B.

RESIDUAL AND WASTE PRODUCTS (BY-PRODUCTS) may be defined as those materials which in the cultivation or manufacture of any given commodity remain over, and which possess or can be brought to possess a market value of their own, apart from the value of the article from whose manufacture or in connection with whose cultivation they have resulted. In this way straw is a residual or by-product resulting from the cultivation of grain. J. E. Cairnes, *Some Leading Principles of Political Economy*, 1884, p. 128, refers to them as "accessory products," and defines them as commodities which are produced, not separately, but as parts of a common industry, and of which the most obvious examples are mutton and wool, beef, tallow and hides, gas and coke, and the like.

J. S. Mill, in his chapter on "Some Peculiar Causes of Value," *Principles of Pol. Econ.*, vol. ii. bk. iii. ch. xvi., treats of the joint cost of production of two such articles, and shows how

"the outlay is incurred for the sake of both together, not part for one and part for the other"; that cost of production does not determine their prices, and that to determine their prices we must "revert to a law of value anterior to the cost of production and more fundamental—the law of demand and supply. The gas may find an easy market, but purchasers may not be forthcoming for the coke, and *vice versâ*. In this case, the coke being lowered in price to force a market will lower the whole rates of profit on the joint production; it will cease to be remunerative and less gas will be produced, whereupon gas prices will rise, the stationary condition of the supply of coke will clear the market of it and cause a demand for more; the rise in gas and coke will attract capital, but, as to supply the demand for coke gas must be manufactured, gas prices will fall, and this time it will be the coke which has supplied the lion's share of the profitable return on the manufacture."

"Equilibrium will be maintained when the demand for each article fits so well with the demand for the other that the quantity required of each is exactly as much as is generated in producing the quantity required of the other" (p. 109 *ib.*). Mill then sums up: "When, therefore, two or more commodities have a joint cost of production, their natural values relatively to each other are those which will create a demand for each in the ratio of the quantities in which they are sent forth by the productive process."

Charles Babbage, in his *Economy of Machinery and Manufacture*, London, 4th ed. 1835, refers to waste products, p. 11, par. 9, such as the employment of hoofs of horses and cattle, and other horny refuse, in the production of the prussiate of potash; and also to the re-use of old iron and old tin-ware. On p. 217, par. 270, he writes: "Among the causes which tend to the cheap production of any article, and which are connected with the employment of additional capital, may be mentioned the care which is taken to prevent the absolute waste of any part of the raw material. An attention to this circumstance sometimes causes the union of two trades in one factory. . . . An enumeration of the arts to which the horns of cattle are applicable will furnish a striking example of this kind of economy. The tanner who has purchased the raw hides separates the horns, and sells them to the makers of combs and lanterns. The horn consists of two parts—an outward horny case, and an inward conical substance, somewhat intermediate between hair and bones. The first process consists in separating these two parts. . . . The horny exterior is then cut into three portions. . . . The lowest of these is made into combs; the middle of the horns forms a substitute for glass in lanterns of the commonest kind; the tip of the horn is used by the makers of knife handles, and of the tops of whips. . . . The interior or core of the horn is boiled down in water. A large quantity of fat rises to the surface. This is put aside and sold to the makers of yellow soap. The liquid itself is used as a kind of glue, and is purchased by cloth-dressers for stiffening. The insoluble substance which remains behind is then sent to the mill, and, being ground down, is sold to the farmers for manure, as also are the comb shavings from the horn."

This example will serve as an instance of the economic uses of a "waste product." Chief products and waste products are, however, relative terms. What is a waste product to one man may be a chief product to another. A. L.

[P. L. Simmonds, *Waste Products and Undeveloped Substances*, London, 1873; see also By-Product; By-Products, Theory of Value of; Progress, Influence of, on Value; Shoddy.]

RESIDUAL SHARE (Wages). A well-known American economist, the late F. A. Walker, has advanced the theory that wages equal the product of industry *minus* rent, interest, and profits, or in other words that "the labourer is the residual claimant of the product of industry." Hence he concludes that if the total amount of the production of a community be increased, the increase will go, not to the landlords, nor to the capitalists, nor to the employing class, but to the labouring class in enhanced wages. As a practical illustration he points to the western states in America, where "employers were paying their labourers by the year, giving the full wages only when the crops were harvested or the goods marketed, making meanwhile such advances as their means allowed, or as were required by the varying wants of their workmen." He allows that in England and other settled countries, the practice is wholly different, and that the labourers fail to obtain that share in the product to which, according to his theory, they are entitled. But he attributes this to imperfect competition, and especially to the immobility of labour and its consequent failure to find the best market. Given perfect and enlightened competition, he holds that the labourers and not the employers will receive the residue of the product, and that the other shares, no matter how they are actually paid, may be regarded as preliminary deductions.

This theory of wages has its basis in Mr. Walker's theory of profits. He holds that profits are akin to rent, that they vary with the abilities or other advantages of individual employers, and they do not form part of the price of goods. Just as the normal price of agricultural produce depends on the cost of production on those lands which pay no rent, so the normal price of manufactured goods depends on the cost of production in the hands of those employers who earn no profits. More

skilful and energetic employers make the goods cheaper and sell them at the same price. Hence they earn a reward which is due entirely to their own merits, which cannot be confiscated, and which inflicts no hardship either on the labourers or on the consumers. The only way in which these profits can be reduced is by raising all round the average skill and ability of the employing class generally, so as to diminish the exceptional gains of the great captains of industry.

For this view of profits there is much to be said, and it unquestionably accounts for some prominent characteristics of modern industry.

But Mr. Walker has pressed the analogy between profits and rent too far. Because rent is measured from no-rent land, therefore he holds that profits must be measured from a "no-profits" class of employers. To quote his own words, "no small part of the posts of industry and trade are filled by men inadequately qualified, and who, consequently, have a very checkered career and realise for themselves, taking their whole lives together, a meagre compensation, so meagre that, for purposes of scientific reasoning, we may treat it as constituting no profits at all." But this assumption seems to go too far. It is quite true that employers sometimes conduct an industry at a dead loss, and find their way to the bankruptcy court. But it is equally true that many people make foolish investments and lose both interest and principal. It is equally true that some landowners cultivate their own lands, and lose money every year in the process. But these exceptional circumstances cannot and do not affect any permanent theory of interest or rent. The minimum rate of interest at any time is not *nil*, but the lowest rate at which people can be induced to save. So the basis of the theory of rent is not land which is worked at a loss, but the land which it is just worth while to cultivate. The same considerations must apply to industry and trade. The normal minimum of the reward of the employing class must be that which will just induce men to give their time and labour to the work of supervision and organisation. And this minimum is probably one of the most substantial shares of the product of industry. If a struggling employer has succeeded in carrying on an industry for his lifetime, and during that time has supported himself and probably brought up a family, it is preposterous to consider his earnings as nothing at all. What those earnings are to be called is another matter. Mr. Walker would decline to call them profits, because they are not earned by any exceptional ability. The employer who earns them belongs to the lowest normal class of employers, the people who conduct an industry so as to just pay them and no more. The truth is that the earnings of this class are wages, what J. S. Mill called "the wages of superintendence." The primary difficulty of any theory of wages is the definition of the "labouring class." A man is none the less a labourer because he works with his head instead of with his hands. And a man is none the less a wage-earner because he pays his wages to himself instead of receiving them from another. The labour of supervision may be done by the master himself, or it may be done by a paid manager, who receives a salary, *i.e.* wages. The work is the same in both cases, and the reward is also the same. Thus the true conclusion seems to be that we must eliminate the temporary exceptions of production at a loss under conditions that cannot last. In the normal conduct of industry and trade all employers receive the wages of superintendence, and the more able receive an extra remuneration proportioned to their ability, which may be called profits or exceptional profits. The stage from which these profits must be reckoned, corresponding to the no-rent land, is the stage at which employers earn the bare wages of superintendence and nothing more.

If wages be taken in this extended sense, so as to include among the labouring class those who supervise industry as well as those who work with their hands, then Mr. Walker's theory may in the end be accepted, and it may be held that wages equal the residue of the product of industry, after deducting the rent of land, the interest on capital, and the profits of exceptional ability in direction. But this theory is of little practical use, as it leaves us face to face with the great problem of the present day, that this residue has to be further divided between employers and employed, between the class who pay their own wages and the class who receive their wages from others.

[F. A. Walker, *Pol. Ec.*, pt. iv., chs. iv. v. and vi., and *The Wages Question*, bk. ii.—Taussig, *Wages and Capital* (1896).—Bonar, "Residual Theory of Distribution," *Harvard Quart. Journ. Ec.*, October 1891.] R. L.

RESPONDENTIA BONDS. This form of security, now disused through changed conditions and the immense capital employed, was one under which advances were made to the captain of a ship on the security of her cargo; respondentia bonds differed, therefore, from bottomry bonds, whereby the ship herself is pledged as security. (BOTTOMRY, LOAN ON.)

The contract of bottomry and respondentia seems to have deduced its origin from the custom of permitting the master of a ship when in a foreign port to hypothecate the ship in order to raise money to refit. Such permission is implied by the act constituting him master, not by common law but by marine law, for if the voyage is likely to be defeated for want of necessaries, it is better that the master should have power to pledge the ship and goods rather than the ship be lost or the voyage defeated.

The period at which respondentia bonds first came into vogue is obscure equally with their distinguishing name, but the traders of the ancient world, to whom the contract of insurance was certainly unknown, were perfectly acquainted with the contract of bottomry and respondentia. There are evident traces of these species of contract in the fragments of the famous sea laws of the Rhodians, who used to borrow and lend on the hazard of the voyage for an increased premium. These laws speak of advances to the masters of ships who were proprietors of one-third of the lading, whether for the outward or for the homeward bound voyage, or both. Again, if the masters or merchants borrowed money for their voyages, the goods, freights, ships, and money being free, they could not make use of suretyship unless there were some apparent danger either of the sea or of pirates; and for the money so lent the borrowers had to pay naval interest. The Romans, who adopted the Rhodian laws, called respondentia *trajectitiæ pecuniæ*, probably because money was exported with the object of bringing back goods. If the ship were lost, the lender lost principal and interest.

In the middle of the 18th century, respondentia bonds appear to have been a form of security commonly taken by bankers and others to cover advances made on ventures to eastern ports beyond the Cape of Good Hope. As in the case of bottomry bonds, and in more remote times in the case of FŒNUS NAUTICUM (*q.v.*), the security of respondentia bonds became the medium of a species of marine insurance, and even degenerated into gambling, money being lent on the mere hazard of the voyage, on the condition that the loan should be repaid with extraordinary interest in case the voyage should be safely performed. To check this tendency it was provided (19 Geo. II. c. 37, § 55) that "all sums of money lent on bottomry or respondentia upon ships belonging to His Majesty's subjects, bound to or from the East Indies, shall be lent only on the ship or on the merchandise or effects on board, or to be taken on board, and shall be so expressed in the condition of the bond."

As the commerce of the country increased and insurance became more prevalent, it was found necessary to insert in the policy that the interest insured was bottomry or respondentia.

Lord Stowell, in the case of the *Gratitudine*, decided that the master of a vessel may in a foreign port hypothecate the cargo for repairing damages absolutely necessary. There is no restriction by the law of England as to the persons to whom money may be lent on bottomry or respondentia, neither is the amount restrained by any regulation whatever, except that on ships and goods going to the East Indies the money lent must not exceed the value of the property on which the loan is made.

Lord Mansfield held that by the custom of merchants, respondentia is insured under a special denomination, but Kent has also suggested that the risk is peculiar, as there is neither average nor salvage, and a capture does not mean a temporary taking only, but one that occasions a total loss. If it can be shown to be the usage in any particular trade to insure these interests under general words, they may be recovered under a policy containing such words only. On the ground of such being the custom in the East India trade, a captain was permitted to recover, at respondentia interest, money he had laid out for the use of the ship under the general words goods, specie, and effects on board.

The security given by the bond was on the goods and effects carried from England on board the ship, and on all other goods and effects acquired during the voyage.

The form of account endorsed on the bond was as follows. The Mr. Ebenezer Blackwell named was a member of the banking firm of Martins and Co.

ENDORSEMENTS.

Respondentia Bond. Jenkins to Blackwell. £3000 out and home at 32 per cent. Dated 30th November 1756. Due 30th July 1758.

1756				
Nov. 30.	To Money lent on Respondentia	£3000	0	0
	To Respondentia on do. from 30th Nov. 1756 to 30th Nov. 1759, 36 months at £48 p. month	1728	0	0
		4728	0	0
	To Interest on £4728 from 30th Nov. 1759 to ye 22nd May 1760 the day the ship came to its moorings being 5 mo. 22 days at 5 p. cent p. ann.	112	14	9
	To Do. on Do. from 21 June 1760 to the 9th July being 18 days at 5 p. c.	11	12	9
		£4852	7	6
1760				
July 9.	Recd. in part of the within Bond	1500	0	0
		3352	7	6
	To Intst. on £3228 from 9th July 1760 to 31 Xber being 5 mo. 22 days at 5 p. c. p. ann.	76	19	4
		£3429	6	10
Dec. 31.	Recd. in further part of the within Bond	1500	0	0
		£1929	6	10
	To Intst. on £1728 from 31 Xber 1760 to 1 Jan. 1762 being 12 months at 5 p. c.	86	8	0
		£2015	14	10

Recd. 5 April 1762 the sum of One thousand and fifty eight pounds five shillings and five pence our several proportions as under being 10/6 in the £ on the sum of £2015:14:10 the Ballance due on this bond the 1st Jany. last and for which we have given Receipts to Mr. Blackwell.

Martins Stones & Blackwell	1/3	£352	15	1
Jos. Freame & Co.	1/6	176	7	7
Jos. Salomons	1/6	176	7	7
	1/6	176	7	7
	1/6	176	7	7
		£1058	5	5

[Park, *A System of the Law of Marine Insurance*, 1842.

—John William Smith, *Compendium of Mercantile Law*, 6th edition by G. M. Dowdeswell, 1859.—Marshall, *On Marine Insurance and Bottomry*, 4th edition by William Shee, 1861.—Lowndes, *The Law of General Average*, 1873. —Boyd, *The Merchant Shipping Law*, 1876.—Arnould, *The Law of Marine Insurance*, 6th edition, 1887.—W. Gow, *Marine Insurance*, 1895.] J. R. M.

RESSI, ADEODATO. A professor at the university of Pavia at the beginning of the 19th century.

He wrote a treatise on economics in four volumes, entitled *Della economia della specie umana;* this treatise contains many vague and confused ideas, especially in the general principles on which the work is founded. While it is neither remarkable for the order of the matter —being full of frequent digressions—nor for sound logical argument, yet it deserves praise for the extent of learning shown, particularly in the part which deals with theory.

Ressi makes acute observations on the population question in reference to the theory of progression maintained by Malthus. He applies the doctrine concerning population to the problem of charity, maintaining that the growth of population must be checked by severe laws on charity; he would also limit the rate of marriage among the poor.

Examining the phenomena of value in a somewhat confused and indefinite manner, Ressi follows the ideas of Molinari Valeriani, basing value on the relation between demand and supply, but he does not thoroughly understand Valeriani's mathematical formula.

He puts forward sound ideas on international trade, limiting its importance to the general interests of the country, and advocating the widest possible freedom for trade.

Ressi makes correct reflections on small and large cultivation, recognising the application of the one and the other system to be dependent on the conditions of place and the nature of the products. He desires that the state should create industries to employ workmen thrown out of work through the use of machinery.

He has strong views on finance and the organisation of the taxes. He opposes the single tax, and in the taxation of land and manufactories he would exempt that quota which supplies the physical minimum necessary for life.

Dell' economia della specie umana, four volumes, Pavia, 1817-1820. (See Graziani, *Le idee economiche degli scrittori emiliani e romagnoli sino al 1848*, Modena, 1893; Idem, *Storia critica della teoria del valore in Italia*, Milan, 1889.) U. R.

REST, THE (BANK OF ENGLAND). The "rest" of the Bank of England is the name given for the difference between the assets and the liabilities—in other words, for the amount of the undivided profits held by the bank. It never, of recent years, is allowed to drop below £3,000,000, but immediately before the distribution of the dividends on bank-stock, in April and October, it sometimes mounts up to about £3,800,000.

The rest was first instituted in 1722, the year in which the Bank of England bought £200,000 South Sea annuities, two years after the bursting of the South Sea Bubble (see BUBBLES; SOUTH SEA COMPANY). The rest has gone through various great fluctuations, the largest amount recorded being £8,639,680 (29th February 1816). Out of this surplus profit "an addition of 25 per cent was made to the capital stock of the proprietors" in the spring of 1816 (Tooke's *History of Prices*, vol. ii. p. 43). The rest did not long remain at this very high figure, which it attained during the suspension of specie payments, and it soon assumed proportions closely corresponding to those existing at the present time.

[Tooke and Newmarch, *History of Prices*, 6 vols. London, 1838-1857.—Francis, *History of the Bank of England*, 2 vols. London, 1847. —Marshall's *Digest*, London, 1833.—Turner, *Chronicles of the Bank of England*, 1897.]

RESTITUTIO IN INTEGRUM. Rescission of a legal act by the supreme authority of the prætor, where it has caused injury to the complainant, and there is valid ground, such as minority, fraud, or mistake, for reinstating a person in his original position. E. A. W.

RESTRAINT OF TRADE (LAW OF). In early days English law regarded all contracts in restraint of trade, that is to say, contracts by which a man bound himself not to carry on his trade or calling, as contrary to public policy, and therefore void. But about three centuries ago the rule became established that though a contract in general restraint of trade was bad, a contract in partial restraint might be valid. A man, for good consideration, might bind himself not to exercise his trade or calling to the prejudice of another within certain limits as to time and place. Of recent years the courts of equity have regarded the common law rule as a mere application of a more general principle, namely, that the restraint must be reasonable, having regard to the circumstances of the particular case, and not opposed to any obvious public interest. This principle has now received the sanction of the House of Lords, and will govern for the future. It was established in the case of *Maxim* v. *Nordenfelt*, A.C. (1894), 535, where a patentee and manufacturer of guns and ammunition for war purposes covenanted with a company to which his patents and business had been transferred, that he would not for twenty-five years engage in any similar business except on behalf of the company. This covenant was upheld as reasonable for the protection of the company. The history of covenants in restraint of trade is elaborately traced by Lord Bowen in the court below, L.R. 1 Ch. (1893), 651.

M. D. C.

RESTRAINT ON ANTICIPATION. It is a general principle of the law that a man cannot be deprived of the *ius disponendi* by a prohibition against alienation contained in the instrument under which he takes property. But in the case of married women such a

restraint can be imposed. After courts of equity had established the right of a married woman to hold separate estate, it was found that she might under the influence of her husband alienate the separate estate, and thereby defeat the object for which the estate was given. In order to prevent this, the courts of equity laid down the rule that a married woman might be prohibited from anticipation the income of her property, *e.g.* by sale or mortgage, so that she had power to deal with payments only as they actually became due. The restraint only attaches whilst marriage lasts, and therefore does not apply to a widow during her widowhood, but it will reattach on remarriage. By the Conveyancing Act 1881, a court may if it thinks fit, and if it appears to the court to be for the benefit of a married woman, make an order binding the separate estate notwithstanding that she is restrained from anticipating. J. E. C. M.

RESTRICTIONS ON LABOUR. What W. S. JEVONS calls "the evolutionist doctrine of freedom" has hardly a simpler or more effective illustration than the history of restrictions on labour. They were implied in the mediæval conception of unquestioned state control, and in the despotic theories of the new monarchy, and were discouraged simultaneously with the growth of philosophical ideas of liberty before and after the French revolution; while the movement for the abolition of political and religious disabilities in the early part of this century found its economic counterpart in the views of the MANCHESTER SCHOOL, whose advocacy of unrestricted *laissez faire* in the domain of industry was apparently strengthened by the proved advantages of *laissez passer* in the domain of commerce. In the struggle between state and society, as Von Plener says, the modern industrial society won a rapid victory; but the abuses of the new order caused a reaction, in origin not economic but moral, which led to a reassertion by economists of the necessity of state control, based not on the old authority principle, but on considerations of general utility (see ADMINISTRATION). During the present century "two great discoveries have been made in the science of government: the one is the immense advantage of abolishing restrictions upon trade; the other is the absolute necessity of imposing restrictions upon labour" (Duke of Argyll, *Reign of Law*, London, 1867, 2nd ed. 1884, ch. vii.). The LAISSEZ FAIRE school (*q.v.*) followed BASTIAT in confusing the art of legislation with the science of economics, and consequently misunderstanding both. The aim of legislation is not to secure the operation of scientific forces—which secures itself—but to provide the conditions under which those forces work for human good (Marshall, *Economics of Industry*, London, 1879, p. 3). On the one hand, the aspect of a situation is seldom purely economic; on the other, the peculiar nature of economic science makes it impossible for economic interests to conflict with any other human interests (CAIRNES, *Essays in Political Economy*, London, 1873, essay vii.). The *laissez faire* view of restrictions on labour arose from a misconception of one element of economic existence—the human factor—in the very region where misconception was most fatal, since a man who sells his LABOUR (*q.v.*) sells his personality for the time being. The supporters of the first Factory Act urged philanthropic as against economic considerations, but in reality they were better economists than their opponents. Liberty in the *laissez faire* sense was not liberty at all. Economic liberty, as Levasseur remarks (*Les Corporations et la Liberté du Travail*, Paris, 1866), demands security, individual responsibility, the protection of those citizens who from the nature of the case are not free, and the sufficient education of all; and experience showed that all these conditions were violated when industrial competition was unrestrained by the state.

To repudiate the principle of unrestricted liberty is not to invoke that of paternal government. Since the individual may be trusted to follow his own interest, *laissez faire* is the legislator's best general rule; since all persons are not equally capable of doing so, restrictions become necessary in special cases for the protection of the weak. It is not always possible to wait for the operation of natural laws to relieve an evil, since economic forces once started on a wrong course work with merciless rapidity; but state intervention is not always advisable even where individual and public interests are undoubtedly opposed. The degradation of labour is hastened by mistaken or excessive as much as by defective legislation. Every restriction destroys some good while removing evil; and its full effects are not at once perceptible. Jevons, therefore, advocates experimental legislation in limited areas. Experience is the legislator's sole guide, and in estimating the value of a restriction, time, place, history, and natural characteristics must be considered. A regulation destructive of freedom in an advanced civilisation may be its safeguard in a ruder state of society: for instance, the advantages of free contract in England are no argument against forced apprenticeship in South Africa. Definite conclusions as to restrictions on labour are forbidden alike by the empirical character of the legislative art, and by the elastic and progressive nature of the economic science. Restraint must stop short of the point where it produces instead of protecting weakness. It must not handicap the weaker against the stronger, nor diminish that responsibility for the conduct of life which forms an important part of national education, nor interfere with the certain good of freedom in order to

prevent evils merely hypothetical. Class legislations, like the Statutes of Labourers of Edward III. and the Parish Settlements Act of Charles II., are false in principle, and disastrous if put into practice.

Restrictions may be imposed by the state, or voluntarily adopted. Direct restrictions were made necessary in the interest of the labouring class by the abuses of the large industrial establishments which arose on the introduction of machinery. FACTORY ACTS (*q.v.*) were, however, in no sense class legislation; and, in fact, protect the better sort of employer against the competition of more unscrupulous rivals. Interference with individual liberty, or, as regards children, with the *patria potestas*, was in this case justified on both scientific and practical grounds. Danger from the competition of unrestricted foreign industries was urged against the acts; but, apart from the fact that factory legislation in England was gradually followed by similar, and, in some cases, more complete legislation abroad, the ultimate results of reform were not disadvantageous to the employers (see Von Plener, *English Factory Legislation*, English translation, London, 1873, p. 92; Tooke, *History of Prices*, London, 1857, vol. vi., appendix viii. p. 519). Of the various kinds of restrictions, (1) limitations on the labour hours of children and young persons, for reasons of health, and, in the former case, of education, are now recognised as necessary both by economists and legislators (see CHILDREN'S LABOUR). (2) Similar restrictions in the case of men cannot be discouraged on the principle of liberty, since an individual workman in a large industrial establishment is often not entirely a free agent; and the state has already conceded the principle of protective legislation for men, in the laws forbidding TRUCK payments and enforcing the fencing of machinery. FAWCETT opposed the nine hours bill as encouraging the growing tendency of workmen to rely on state intervention (*Speeches on some Current Political Questions*, London, 1873). ROSCHER thinks limitation of hours advisable only where the labouring class is not in a condition to defend itself by combination; he points out that, in any case, the "normal day" would require to be of different length in different trades. (3) As to the labour of women, opinions differ. The legislature recognises a distinction in restricting their labour hours and in forbidding their work in mines and collieries. Some economists, like J. S. MILL (*Principles of Political Economy*, popular edition, London, 1880, p. 579) and Fawcett (*loc. cit.*), protest against restrictions based on sex; others, not contradicting them in principle, advise restrictions on the ground of expediency. Roscher remarks that the question must be decided according to each case: it would be unfair if regulations, due possibly to jealousy, should deprive a widow, for instance, of the means of bringing up her children. Jevons advocates further restrictions in the case of married women, but admits the difficulty of legislative interference at present (see FEMALE LABOUR). Two species of industry demand particular notice. (4) The labour of shop assistants was until lately left free from restriction, as belonging to the sphere of trade; but the distinction is often purely artificial. Jevons, writing before the Shop Hours Acts, showed that for effective reform in this respect state intervention was necessary, and practicable. In view of possible disadvantage to the public, especially the working-class public, he suggested experimental legislation. (5) In agricultural labour legislation has been found necessary to break up the system of public gangs, and to secure the education of children. (see GANGS, AGRICULTURAL; GOVERNMENT REGULATION OF INDUSTRY).

Restrictions which begin with being voluntary become occasionally in course of time sanctioned, enforced, or prohibited by the state. Their character is necessarily greatly modified under these circumstances. The influence of the state is traceable in all three directions with regard to the most ancient and important of them, the GILD or TRADE UNION. So long as the state refrains from protective restrictions on the ground that men can make their own terms, it cannot justly refuse to labourers the right of combination which is often their only means of doing so (M'Culloch, *Treatise on the Rate of Wages*, London, 1868, ch. vii.); further, since common trade interest is one of the strongest of social bonds, prohibition usually results in the transformation of a trade union into an industrial conspiracy. On the other hand, to enforce the trade union on the public, as was the object of the English Statute of Apprentices in 1562, is to establish a monopoly with its attendant evils. The remarks of SAY (*Cours Complet d'Écon. Pol.*, Paris, 1852, pt. iv. ch. viii. ix. x.) and of SMITH (*Wealth of Nations*, bk. i. ch. x. pt. ii.) apply to the gild in its later, not in its earlier or free form. The objects of trade union restrictions are various. Attempts to limit the number of workmen in a trade, as checking the mobility of labour, are condemned by Howell (*Conflicts of Capital and Labour*, London, 1890, ch. v.), who, however, shows that in general there is little practical difficulty in entering a trade union. Regulations with a view to securing efficient workmanship existed in the gilds, as in the modern incorporated professions; here the trade unions have as yet shown little activity. In legislation on the methods of industry the efforts of trade unions, like those of governments, have usually been misdirected (Walker, *Wages Question*, p. 406); Howell thinks they have been slandered in this respect. The objections formerly urged against STRIKES

were based on the exploded doctrine of the WAGES FUND (*q.v.*). Economists now regard them as inevitable in the present position of employer and labourer; the state neither forbids nor protects this species of contract. The survival of APPRENTICESHIP (*q.v.*) in England is due chiefly to the trade union; the state no longer imposes any restrictions as to number, nor, except in the case of the medical and legal professions, as to time. SMITH (*loc. cit.*) advised the abolition of apprenticeship as producing neither industry nor efficiency. Jevons follows him, and would have restrictions placed on the power which, under the common law, parents still possess of binding their children as apprentices. Roscher, after describing the evils of the German system, suggests as remedies written contracts, trial periods, and the extension of the examination system. Like CARLYLE (*Past and Present*, London, 1872, bk. iv. ch. v.), he maintains the moral and economic necessity of permanent contracts between workman and employer, but doubts whether anything is to be gained by state regulation. He advises a system of *Arbeitsbücher* as likely to promote the desired condition of mutual appreciation and comprehension.

[See Roscher, *System der Volkswirthschaft*, Stuttgart, 1880-81, vol. iii. §§ 147-154.—Jevons, *The State in Relation to Labour*, London, 1882; and Walker, *The Wages Question*, London, 1891, *passim*. Levasseur's essay, quoted above, is part of Thévenin's *Cours d'Écon. Industrielle*. The historical aspect of restrictions is well given by Brentano, *The Relation of Labour to the Law of To-Day*, English translation, London and New York, 1891. On labour legislation see Howell, *Handy Book of the Labour Laws*, London, 1895.—Horner, *On the Employment of Children in Factories*, London, 1840.—Senior, *Letters on the Factory Act*, London, 1837.—Marx, *Capital*, English translation, London, 1887, ch. xv.-xvii. On gilds and trade unions see Brentano, preliminary essay in Toulmin, *English Gilds*, London, 1870.—Fawcett, *The Economic Position of the British Labourer*, Cambridge and London, 1865; and *Manual of Political Economy*, Cambridge and London, 1865, bk. ii. ch. ix., illustrates the wages fund theory. See also Thornton, *On Labour*, London, 1869, bk. iii. ch. iii., iv.]

E. R. F.

RESTRICTIONS ON TRADE. See TRADE.

RESUMPTION (IN U.S.A.) (the $ in this paper converted as 5 = £1) refers to the resumption of specie payments or redeemability of the legal tender notes, commonly known as greenbacks, by the United States government on 1st January 1879. These notes were issued by act of congress, dated 25th February 1862, to the amount of $150,000,000, (£30,000,000). On 11th July 1862 a second issue was authorised to the same amount, and on 3rd March 1863 a third issue, making $450,000,000 in all (£90,000,000). These notes were at first fundable into government bonds, but in July 1863 that privilege was withdrawn. The notes depreciated; in 1862 they were worth only 86 cents, in 1863 only 76 cents, and at one time in 1864 they sank as low as 38 cents. Before the end of the war, congress became alarmed at the depreciation, and on 30th June 1864 passed a resolution that "the total amount of United States notes issued or to be issued should not exceed $400,000,000 (£80,000,000), and such sum not exceeding $50,000,000 (£10,000,000), as may be temporarily required for redemption of temporary loans." On the conclusion of the war, Secretary of the Treasury M'Culloch, in his report (4th December 1865), recommended "the steady and persistent retirement of the legal-tender notes until we should get back to specie basis," and in his report for 1866 the secretary expressed the opinion "that specie payments may be resumed and ought to be resumed as early as the first day of July 1868." Congress did indeed authorise the secretary (12th March 1866) to exchange notes for bonds, but not more than $10,000,000 (£2,000,000) a month for the first six months and thereafter not more than $4,000,000 (£800,000) in any one month. But the retirement of these notes was counterbalanced by the issue of national bank notes, and the premium on specie remained about the same. Owing to the outcry about "contraction" of the currency, congress in January 1868 stopped further redemption. At that time there were about $356,000,000 (£71,200,000) of the notes outstanding. The next secretary (Boutwell) agreed with congress that the true policy was to wait for the country to "grow up" to the present volume of currency, believing that then the premium on gold would disappear, and specie payments might be resumed (Report, 1872, p. xxii.). The maximum fixed by law remained at $400,000,000 (£80,000,000), although the amount actually outstanding was only $356,000,000 (£71,200,000) or less. During the panic of 1873 the amount was increased to $382,979,815 (£76,595,963) by Secretary Richardson, who bought bonds in order to relieve the money market. An act of 20th June 1874 provided that "the amount of United States notes outstanding and to be used as part of the circulating medium shall not exceed the sum of $382,000,000 (£76,400,000), which said sum shall appear in each monthly statement of the public debt, and no part thereof shall be held or used as a reserve."

Finally an act of 14th January 1875, known as the Resumption Act, required the secretary of the treasury, on and after 1st January 1879, to redeem in coin the legal-tender notes on their presentation at the office of the assistant treasurer in the city of New York, in sums of not less than $50 (£10). To accomplish

this, the same act authorised an increase of the circulation of national banks, but required the secretary of the treasury to retire legal-tender notes, to an amount equal to 80 per cent of the national bank notes thereafter issued, until the amount of such legal-tender notes outstanding should be $300,000,000 (£60,000,000) and no more. This portion of the act was repealed in 1878, but the amount of notes outstanding had been reduced to $346,681,016 (£69,336,203) at which sum it has since remained. Still further, the secretary was authorised "to use any surplus revenue from time to time in the treasury not otherwise appropriated, and to issue, sell, and dispose of, at not less than par in coin, any of the 5, 4½, and 4 per cent bonds authorised by the act of 1870." The secretary sold bonds and accumulated a reserve of $135,000,000 (£27,000,000) of gold coin and bullion, or about 40 per cent of the outstanding notes. The banks of the country aided the government, holding at the date of resumption more than one-third of the outstanding notes, but none were presented by them for redemption. The people had confidence in the government and preferred the paper money. There was, therefore, no demand for payment of the notes, and the gold reserve increased more than $36,000,000 (£7,200,000) in the ten months succeeding resumption. The act of 1875 is continuous in its operation, and has since been made use of to replenish the gold reserve depleted by the panic of 1893 and the fear of free coinage of silver.

[Reports of Sec. of Treasury. John Jay Knox, United States Notes, N.Y., 1884.] R. M.-S.

RESUMPTION OF SPECIE PAYMENTS IN THE UNITED KINGDOM. See SUSPENSION OF SPECIE PAYMENTS.

RETAIL AND WHOLESALE. *Retail* derivatively means to cut up again (Fr. *retailler*, comp. *et gros et en détail*). It is generally used now in opposition to *wholesale* to express the act of selling commodities in small quantity, especially at shops or stalls. Originally the term meant something more than this, it conveyed the meaning that the phrase "retailing a story" does still; namely providing it at *second-hand;* but this implication seems practically obsolete at present, except in the above connection. A retail trader is consequently a purveyor of goods on a small scale, nothing more. The signification of *wholesale* is wider. It means dealing in the gross, or on a large scale, both as to buying and selling; in which former respect therefore it differs from the complementary term.

The Factory Act of 1883 (46 & 47 Vict. c. 53) contains a legal definition of retail in connection with the special occupation of *baking*. Section 18 enacts—"The expression 'retail bakehouse' means any bakehouse or place, the bread, biscuits, or confectionery baked in which are not sold wholesale, but by retail in some shop or place occupied together with such bakehouse, which is not a factory within the meaning of the act of 1878." This appears to be the only statutory definition of either term.

R. W. C. T.

RETALIATION. The idea of retaliation assumes that, in Bismarck's words, "Trade between nations is to the advantage of one party over another" (*Speech*, 2nd May 1879), and therefore one nation benefits its own by hurting another nation's trade. When Europe formed itself into nations this idea was almost universal. Bacon's "Quidquid alicubi adjicitur alibi detrahitur," Montaigne's "Le proufict de l'un est le dommage de l'autre," De Launay's "Quand on agit contre l'étranger on agit pour la nation," were maxims to which the most enlightened writers (like GROTIUS) only discovered exceptions; until TUCKER (1747), HUME (1752), QUESNAY (1756), and JUSTI (1759), and finally A. SMITH (1776), reversed their maxims, so that the only question which modern economists ask is: are retaliatory tariffs compatible with the undoubted truth that trade is mutual gain? Most nations answer this question in the affirmative, and the Swiss referendum (18th Oct. 1891) sanctioned the worst retaliatory tariff. Since 1860 France has had a double tariff on imports, and the maximum, which, since 1892, has been used for no other purpose than as a threat to extort concessions for French exports, is usually 41 per cent higher than the minimum; nor will she, since 1892, bind herself to the minimum tariff for more than a year. Germany in 1879 conferred on the executive, subject to confirmation by the legislative, power to add 50 per cent to tariffs on imports, and this was increased to 100 per cent in 1895. An act of 1828 authorised the U.S. executive to remit discriminating duties on proof of "reciprocal exemptions"; and the McKinley tariff (U.S.A., 1890) enabled the executive to impose duties on the then free breakfast-table, a provision borrowed by the Dingley tariff (1897), and copied by Germany in 1895. Every nation — except England — arms itself in one or all of these ways, and uses its arms if its exports are subjected to disadvantages. Lord Salisbury has often (*Times*, 12th Oct. 1881; 11th March 1897) expressed a wish that he might wield these weapons with regard to luxuries, even although their use would prove protective. Colonel TORRENS held similar views some sixty years ago. No one will deny nowadays that in sur-taxing imports we dwarf or destroy not only that trade, but also the export trade which buys the imports, unless the consumer or producer submit to be sur-taxed; that is to say, in any case retaliation must be double-edged. The only questions are: (1) Which edge is sharpest? Can we injure others

more than ourselves? (2) Is it worth while to maim ourselves temporarily in order to secure lasting health?

(1) RICARDO said, "every restriction which we put upon the production of our neighbours reacts with a *double* force upon our own" (Hansard, vol. lxviii. p. 902); and Fawcett wrote as though a tax on the consumer were the "inevitable" effect of an import duty (p. 57); but as Sidgwick and Nicholson point out, there may be cases where the producer reaps economic "rent," and cannot do better than sacrifice his "rent" in order to keep the old customer. But in the absence of concrete instances it would be folly to act on the supposition that these cases exist. Again, as £100 means more to the poor than £200 to the rich, so doubtless the old policy of England towards Ireland hurt the latter most. But it is not against poor countries that this weapon is asked for. As for rich countries, Fawcett and Farrer have proved that we are net exporters of manufactures to the United States and Germany, so that in case we might be tempted to retaliate by sur-taxing their manufactures, our exports would be likely to suffer most; and in any case our customs' arrangements would have to be more complicated and expensive if we treated each country differentially; and retaliation would generally involve protection unless supplemented by an excise-tax, for which we have not got the machinery. Finally, when the state deprives a trader of his customers, that is the same thing as confiscating his good-will; and trade cannot thrive where confiscations often occur.

(2) Retaliation is by no means an invariable prelude to peace. The commercial treaties which make for free-trade, namely the Anglo-French of 1860, and Caprivi's treaties with Austria-Hungary, Italy, Switzerland, and Belgium (1891-1903), were concluded without retaliatory threats or acts. It is true that the Russo-German, Franco-Swiss, Spanish-German commercial wars of 1893 *et seq.* led to treaties in 1894, 1895, and 1896 respectively, but at what a cost: Germany, France, and Spain hit as hard as their laws allowed them; and Switzerland laid 190 per cent duties on to imports from France, thereby creating temporarily protected industries which it does not like to destroy; indeed, it would seem that a strong reaction towards protection is the necessary result of a war of tariffs carried on on this scale. Further, the United States and Canada have fought since 1865 without being nearer peace. Retaliation is clearly a curse which comes home to roost; the indirect blessings it proposes are sometimes never secured at all, or if secured entail too great sacrifices. The diplomatic argument in its favour belongs, as A. Smith wrote, "not to the science of a legislator," but "to the skill of that insidious and crafty animal *vulgarly* called a statesman or politician." It is as dust when weighed in the balance against, for instance, the argument against protection.

[Lord Farrer, *Free Trade versus Fair Trade* (1882) pt. ii. — *Retaliation and Commercial Federation* (1892).—H. Fawcett, *Free Trade and Protection* (4th ed. 1881). — Prof. Lexis in *Handwörterbuch der Staats-wissenschaften* (1892), Supplement (1895), *s.v.* "Handels-Politik."—J. S. Nicholson in *Britannic Confederation*, ed. A. S. White (1892), ch. iv.—H. Sidgwick, *Principles of Political Economy*, 2nd ed. (1887), iii. 5.—A. Smith, *Wealth of Nations*, iv. 2.—*Statutes of the Realm* (fol. ed.) 7 Henry VII. c. 7 (earliest English retaliatory duty).—F. W. Taussig, "The McKinley Tariff Act," in *Economic Journal* (1891), p. 326.—"The U.S. Tariff Act of 1897." in *Econ. Jour.* (1897), p. 592.—M. Zablet, "La Question Franco-Suisse," in *Journal des Économistes* (1895), p. 232 (see RECIPROCITY.]

J. D. R.

RETENUE. In old French financial language, the stoppage of the payment of a part of a salary, pension, or annuity, due by the state. In times of distress, such *retenues* were a favourite expedient of the French governments before the revolution of 1789. In modern times, it is also applied to the legal percentage kept back on the salary of officials towards a pension, when they leave the public service, either by superannuation or any other lawful cause. E. Ca.

RETIRE A BILL. To withdraw from circulation before maturity. R. W. B.

REVENUE, PUBLIC. See FINANCES, PUBLIC.

REVIVAL, TRADE. "Revival of trade" is a phrase much employed colloquially in market reports and newspaper comments on the condition of industry and commerce. It has a correlative term, namely, depression of trade, and both expressions are frequently employed without much thought as to their meaning. In any case both phrases require explanation when used, for though it is quite true that, as a general rule, the majority of trades "revive" or become "depressed" together, it often happens that some one more of less important trade is an exception owing to a special cause. The term hardly admits of accurate and scientific definition, but certain signs which accompany revival of trade may be mentioned. Among these are increasing clearing-house returns, increasing railway and telegraph receipts, more activity in the markets for wholesale commodities, expansion of the leading branches of the imperial revenue, especially customs, excise, and stamps. Income tax is not so good a measure of trade revival as might be supposed, for it does not respond promptly to the movement, because increased revenues do not as a rule accrue to those engaged in industry until the trade expansion has been going on for some little time, a fact which is recognised

by the provision of the law which allows business men to take the average of the preceding three years as the basis for their assessment to income tax. In like manner the income tax receipts often continue to come in well some time after trade has begun to grow slack, that is, when the volume of commercial transactions, the magnitude of which is fairly represented year by year by the statistics mentioned above, has begun to decrease. No one of these statistical statements alone can be regarded as affording a sign of expansion or contraction in trade, but when several of them are present at once they supply a strong presumption that a movement is taking place.

Very often when a "revival" or "depression" of trade is discussed in the newspapers the writer is thinking too much of some specific trade whose condition at that time has been thrust on his attention, sometimes by accident, sometimes by persons who are interested for the moment in creating an impression that the situation is hopeful or unpromising in their department. Most business men, when they talk of trade being "bad," mean their own trade.

[See J. S. Mill, *Pol. Econ.*, bk. iii. chs. xii., xiv. —Arthur Ellis, *Market Fluctuations.*] W. H.

REVOLUTION, FRENCH (ECONOMIC ASPECTS OF). The French revolution—the most typical revolution of modern Europe — involved a number of economic experiments, which we may conveniently classify into (1) destructive; (2) confiscatory; (3) reconstructive; (4) monetary. Under the head of (1) it is necessary to indicate some of the social conditions of France before the August of 1789. We shall then realise how completely the work of the following months transformed a mediæval into a modern industrial system.

1. Among the economic aspects of 18th-century France we may notice (*a*) a half-decayed feudal system; (*b*) a newly-established centralised autocracy, with a somewhat elaborate organisation of industry, built up chiefly by Colbert within a century, but already falling to pieces.

(*a*) In theory feudalism was based on reciprocal services. Privileges were granted to nobles and clergy in return for services rendered. But by the 18th century the privileges alone remained, whilst the services had ceased to be rendered. The nobles were no longer the administrators of districts. They were, for the most part, courtiers living on their privileges, and rendering no services to the community. Clerical privileges had similarly become mere abuses. Immense endowments were enjoyed by dignitaries who practically discharged no useful functions.

(*b*) The centralised organisation of industry had been partly the result of political circumstances, of the wars with England, and the need of national unity. But the royal power, thus built up, had tried to direct industry into channels that should be advantageous to the king, and to the classes that possessed political influence. The economic results were (*α*) an exceptionally unequal distribution of wealth, partly due to the exemptions from taxation enjoyed by the privileged classes, partly to the opportunities enjoyed by the latter for extorting wealth and unpaid labour from the poor; (*β*) a general depression of trade and manufactures, due partly to barriers that hindered the free passage of goods and labour from one district to another, partly to monopolies enjoyed by corporations, partly to, often well-meant, regulations as to how various industries were to be conducted, and even as to the prices at which certain commodities, especially bread, were to be sold. The burden of a heavy taxation to defray the expenses of long wars, and support the extravagance of the government, was aggravated by the absurd and unequal ways in which it was levied. The economic movement, which we associate with Adam SMITH, involved an indictment of the whole industrial system in France, and more especially of the restraints on trade. The famous phrase, *laissez-faire*, meant originally, "Let men make what they please, how they please"; and *laissez-aller* meant, "Let them move from place to place according to the demand for their labour or their commodities, without the hindrances of barriers and internal customs, of the restrictions of the feudal system, and rules laid down by a paternal government."

The economists practically triumphed on 4th August 1789, the St. Bartholomew of abuses. For among the abuses swept away by the national assembly, restrictions on trade and feudal obligations were prominent. That these restrictions and privileges were injurious is pretty generally admitted. It may be questioned, however, whether their gradual removal would not have been more expedient. So sudden a change was the cause of a vast dislocation of industry, and the industrial condition of France, though rendered less irrational, was little, if at all, improved. Moreover, with the abuses, many institutions were swept away which contained potentialities of useful development. Thus the schools were broken up, and 200,000 children dispersed. Many corporations, such as almshouses and hospitals, were demolished, because the revolutionists were too impatient to attempt their reformation. With the destruction of the old provinces, local patriotism was also to some extent destroyed.

2. This brings us to the *confiscatory* measures of the revolution, of which we may say, generally speaking, that, however necessary or justifiable some of them may have been, they tended to aggravate disorder, to drive capital abroad, and to discourage industrial enterprise.

These confiscatory measures may be divided into (*a*) those dealing with the church; (*b*) those directed against emigrants and other enemies of the revolution; (*c*) those directed against the rich, simply because they were rich; and (*d*) those prompted by the necessities of the government, or the need of pacifying hungry mobs.

Many of the confiscatory measures fall, however, under several of these heads. Thus the partial disendowment of the church (1789-1790) was due partly to hostility towards the clergy, partly to a desire to diminish the inequalities in clerical incomes, partly to the urgent need of money to choke the deficit.

The issues of inconvertible paper were mainly prompted by financial needs, but the special form of the issues (the ASSIGNAT) must be connected with the desire to increase the number of small proprietors, and this again grew partly out of the passion for equality, and partly from the desire to build up a strong class directly interested in the maintenance of the revolutionary settlement.

The heavy taxation of the rich must similarly be connected partly with the passion for equality, partly with the attitude of the propertied classes to the revolution, and partly with financial exigencies. The question how far such special taxation may justifiably be carried is one of the most difficult in economics, but it is certain that the National Convention carried the principle far beyond the bounds of expediency or justice. In so doing much injury was inflicted, even on the poor. The demand for the skill of those whose occupation had been to minister to the comforts and luxuries of the rich was almost annihilated. Many skilled labourers sank to the ranks of the unskilled; others became beggars and thieves.

3. The attempts of the dominant revolutionists to reconstruct the social system were very varied and complicated. Originally the revolutionary party included individualists like Count MIRABEAU, and socialists like Robespierre; and though the former were soon swept aside, the policy of the government varied continually according to the degree of socialism professed by its members.

(*a*) One of the most important and disastrous of the economic experiments of the convention was the attempt to fix a *maximum* beyond which the prices of the necessaries of life might not go. Irregular and partial efforts in this direction had been made even before the revolutionary days, as when the government subsidised the Paris bakers in times of dearth. In 1790 we find local authorities, and sometimes mere mobs of rioters, insisting on a maximum for bread, and sometimes also for meat and other commodities. In 1793, owing to the extensive issues of *assignats*, and to the diminished production consequent upon the interruptions of industry and the general disorder, prices rose with alarming rapidity. In April and May the convention passed decrees establishing a maximum for grain. At a later time the principle was extended to meat, fuel, clothing, vegetables, tobacco, beer, and other articles, including even many kinds of raw materials. Stringent measures were adopted in order to enforce the law, and to prevent evasions by private sales, or by accumulating supplies. But these attempts had only a partial success, though a law was actually passed to punish with death all who possessed supplies of these commodities, and would not offer them for public sale at the legal price. In spite, however, of all evasions, the law brought agriculture, manufactures, and commerce almost to a standstill. Farmers and peasants soon produced little more than sufficed for their own private consumption. Hardly anything was produced for purposes of sale. Many crops remained unharvested; factories were closed; fishermen refused to go to sea. People would not work if they saw no chance of getting remunerative prices for their produce. Many people were imprisoned for the crime of refusing to pursue trades in which they were not allowed to make profits, or of selling at prices which purchasers were glad to pay, but which were often 200 per cent above the legal maximum. Frightful distress followed, especially in cities and unfruitful regions, where people could not produce sufficient food supplies for their own support. Many were crushed to death in the scramble at the bakers' shops; many, especially of the children, were literally starved. After the fall of Robespierre (July 1794) the law was openly broken. Fortunately it had neglected to take cognisance of *live* cattle and sheep, and consequently, though there was a dearth of bread, meat became tolerably plentiful, when it could be sold at a fair price. Agriculture and manufactures began to revive, especially after the maximum law had been formally repealed (December 1794).

(*b*) Another attempt of the socialistic revolutionists was to secure employment for all who wished to work. Here again the revolution was in some respects only following the example of the *ancien régime*, under which unremunerative work had often been started for the benefit of the indigent of Paris. The revolution, however, carried this principle much farther. As early as 1789 there were 12,000 men in Paris employed on useless levelling, at a payment of 9d. a day. In 1793 the "right to labour" was formally affirmed by the convention, but no general attempt was made to secure it; though in Paris, and some other places, employment was artificially created. Some temporary relief was thus given, but the ultimate effect was to aggravate the general misery.

(*c*) Of the effects of the revolution on the distribution of land, we may speak very briefly. It is a complete delusion to suppose that the revolution either created or even extended the system of PEASANT PROPRIETORS in France. In 1815, as in 1788, about 14,000,000 hectares, or somewhat less than one-third of the agricultural land of France, was owned by small proprietors. Nor did the revolution produce or encourage the excessive subdivision of land on the system of small farming. Arthur YOUNG asserts that he saw many properties of 10 roods; and TURGOT complained, long before the revolution, that farms only just capable of supporting one family were divided up, at the owner's death, among five or six children. The part the revolution played in this matter was as follows. (*a*) It practically called into existence a class of medium-sized properties, such as were scarcely known in most parts of France under the *ancien régime*. The confiscated lands of the *émigrés*, of the suspects, of the church, and other corporations, were almost entirely purchased by the *bourgeois* class. The peasants were, in most cases, far too poor to buy even the smallest plots of land. But, in 1831, 700,000 moderate-sized properties existed, averaging 140 hectares each. In this, as in many other respects, it was the middle classes, rather than the poor, who gained by the revolution. (*β*) The revolution promoted an improved system of tillage by abolishing feudal and ecclesiastical dues, forced labour, inland duties, and many other obsolete or oppressive institutions. Quesnay calculated that, in 1750, one-fourth of the arable land of France lay uncultivated. This was largely due to want of capital. Arthur Young estimates the average capital per acre on French farms to have been only one-sixth of what it was in England at the same time. To this want of capital we may add want of knowledge, and, above all, the absence of motive for industry. The *métayer* (see MÉTAYAGE) in particular, knew that half of any increase in produce would go at once to the landlord, and that the rest would probably be taken from him, legally or illegally, by tax-gatherer or noble. The small proprietor and the *métayer* alike were released by the reforms that began on 4th August 1789, from burdens that made their positions almost intolerable, and deprived them of almost all motive for energy. Accordingly, though the revolution did not increase the amount of land owned by the peasantry, it did considerably improve the lot of those who survived the terrible sufferings of the days of the Terror and the reaction.

(*d*) It is scarcely necessary to speak of the attempts made under Robespierre to carry out Rousseau's idea that digging the earth is conducive to virtue. A certain number of pleasure-grounds were converted into potato-fields; but the declared policy of the triumvirate, to cut up France into a number of small estates, was never practically attempted.

On the same principle, we need not dwell on the various attempts made by the revolutionists to extend the agency of the state into the field of industry. These were mostly of so crude a sort that their failure throws scarcely any light on the very important question as to the limits of expedient state interference with free enterprise, or state management of industrial operations. Some of these attempts may have been justified by the critical position of France, or by the miseries of a transition period, especially when that transition is brought about by violence.

4. The currency experiments of the French revolution provide the most striking historical illustration of the injury that may be done to a community by excessive issues of inconvertible paper money (see ASSIGNAT). The first issue of 1790 produced no great evils. In fact, a very good case may be made out in its defence. The government had confiscated the church lands, and were anxious to convert them into small properties. But if these vast territories had been thrown on the markets at a time of general poverty and depression, the prices realised would have been utterly inadequate. Yet in the financial straits to which they had been reduced, partly by the misgovernment and extravagance of the old régime, partly by the early disorders of the revolution, the government could not afford to wait. Moreover, they had every reason to desire to interest the middle classes in the maintenance of the new system, and this could not have been done more effectively than by multiplying the proprietors of confiscated lands; for these would fear the reabsorption of their properties if the reactionaries triumphed. Accordingly 400,000,000 francs were issued in assignats, which the state undertook to accept at full value in the sale of lands, but which were not to be otherwise convertible. This inflation of the currency led, of course, to some rise in prices; but the assignats were not, at first, seriously depreciated. The transaction was in effect a mortgaging of state lands, and there appeared at that time to be force in Mirabeau's argument, that the paper money could not be greatly depreciated so long as its nominal amount remained far below the value of the land which was the holder's security.

The second issue of 1790 might be similarly defended, especially as it was accompanied by a pledge that the total issue should never exceed 1,200,000,000 of francs. It was, however, at least questionable whether the lands regarded as security could, in existing circumstances, be valued as highly as this; and prudent persons might well doubt whether the pledge would be kept. Accordingly, the second issue was only carried by a majority of eighty-five

votes, in spite of the ever-growing financial stress, and the political advantages of the policy from the revolutionary point of view. Nevertheless, the consequences though evil were not disastrous till, in the year 1791, when the national pledge was broken, and the promised limit exceeded by 600,000,000 francs. From this time the French currency became hopelessly disorganised. The precious metals disappeared under the natural operation of GRESHAM'S LAW. Bank notes had to be issued even to supply small change for petty transactions, and prices began to rise with fearful rapidity. By August 1793 there was a premium of 400 per cent on the precious metals. The rise in general prices was at least as high, and the government found itself almost compelled to issue more and more paper to defray its expenses, at the increased prices. The fall of Robespierre, and the triumph of the reaction, did not improve matters in this respect. There were still further issues, and by the beginning of 1796 there was paper in circulation to the nominal value of 3,600,000 millions of francs. The depreciation was now scarcely to be estimated. Industry was almost at a standstill. People produced for consumption, but hardly for exchange, and where exchange was necessary they preferred to resort to barter. It is probable that no branch of the revolutionary policy produced anything like the same amount of misery as the debased currency.

It is difficult to exaggerate the distress that existed in France at the close of the reign of terror, and in the following year (1795). It was almost certainly worse than that which existed under the *ancien régime*. Nevertheless, it can scarcely be doubted that France gained greatly in the long run by the revolution, in the two respects with which economics are chiefly concerned. The production of wealth increased greatly after the revolutionary wars, and the distribution of the product certainly became less unequal. Socialist writers are fond of arguing that it was only the *bourgeois* classes and the peasant proprietors who gained by the revolution. But even if this be admitted, it must also be remembered that these classes formed a very large portion of the nation; and in reality the artisan class undoubtedly shared in the improved industrial condition of France. The economic advantages gained do not, of course, justify the crimes by which the revolution was stained. It is, however, beyond the scope of the present article to pass judgment on these, or to consider the attempts that have been made to excuse or palliate them. Neither can we consider here whether the good might not have been obtained without the evil, or, in other words, whether the institutions of ancient France had sufficient vitality in them to admit of a peaceful development into accord with modern social and industrial conditions, or whether, on the contrary, they were only fit to be cut down and cast into the fire. J. E. S.

REYBAUD, MARIE ROCH LOUIS (1799-1879), born at Marseilles, died at Paris. During his whole life long he wrote, either as an economist, a journalist, or a novelist. He was elected a deputy in 1846, a representative in 1848—both to the constituent and the legislative assemblies, and in 1850 a member of the *Institut* (*Académie des Sciences morales et politiques*). Throughout he retained his individuality unchanged, he belonged to no group, to no party. His deafness isolated him from the crowd, but not from a few chosen friends. As a writer his position was far different; he was popular, and commanded thousands of readers.

To the masses he is the author of *Jérôme Paturot à la recherche d'une position sociale* (1843), an amusing, witty, but somewhat sceptical and cross-grained criticism of the literary schools of the first half of the 19th century; at another time, *A la recherche de la meilleure des républiques* (1848); he criticised often in rather a forced way the political world as it existed after February 1848—that is to say—everybody, since universal suffrage then ruled. To thoughtful minds, those who prefer moral and economic subjects, he is the author of *Études sur les réformateurs contemporains ou socialistes modernes* (1st ed. 1 vol. 8vo, 1840; 4th ed. 2 vols. 8vo, 1843; 7th and last edition, 2 vols. 8vo, 1864), which appeared in 1836 and 1838 in the *Revue des deux mondes*, and won him, 1841, the great Montyon prize. Other works recommend him no less directly to scientific thinkers, *Les économistes modernes*, Rich. Cobden, Fréd. Bastiat, Mich. Chevalier, J. Stuart Mill, Léon Faucher, and P. Rossi (8vo, 1862), also first printed in the *Revue des deux mondes;* then the *Études sur le régime des manufactures*, in 4 vols. 8vo (vol. i. 1859, *Silk;* ii. 1863, *Cotton;* iii. 1867, *Wool;* iv. 1874, *Iron* and *Coal*). Finally, in 1849, he made a most valuable report for the government on Algeria. All these works show an observant mind and an independent character. They are written with intelligence, spirit, and good sense. Reybaud was never moved by the opinions of the day. A warm republican during the monarchy, he was a doubtful partizan, even thought reactionary under the republic. Throughout honest and disinterested, there is no stain on his memory. A. C. F.

RICARDO, DAVID (1772-1823), of Jewish origin; his father, born in Holland, was engaged on the stock exchange, London, from the age of fourteen, and, after acquiring a large fortune with the universal esteem and respect of his competitors, began to retire in 1814, when he became a landowner in Gloucestershire, and, though never in Ireland, M.P. for Portarlington (1814-23). A. Smith's *Wealth of Nations*, which he read in 1799, was his only literary education; and his business, of which he said "competition was nowhere carried to such an extent and nowhere operated with more benefit"

(Hansard, xl. 356), exactly realised A. Smith's postulates. The identification of theory with such practice as lay within the scope of his experience is the secret of his character and influence; and he was the first English thinker who brought abstract arguments to bear on questions of the hour and produced immediate political effects such as the report of the BULLION COMMITTEE, and the resumption of cash payments. Indeed this "father of the deductive method," as he has been called, possessed a more vivid insight into certain industrial facts than many economists before or since. His *Political Economy*, "which would never have been published but for the entreaty of my father" (J. S. Mill, *Autobiography*, p. 27), grew out of his private *Letters to Malthus* (1810-23, ed. J. Bonar, 1887) and *M'Culloch* (1816-23, ed. Hollander, 1895), and out of conversations with J. Mill (1811-23), with whom he walked "almost daily" (Bonar, p. 150), Malthus, and (in 1823) M'Culloch. J. Mill said that he and M'Culloch were the only disciples of Ricardo; but Bentham called J. Mill his spiritual son, and Ricardo J. Mill's spiritual son. The solution of this contradiction seems to be that in economics Ricardo's was the master mind, that Bentham's political atomism influenced Ricardo's general views, and that in practical politics their aims happened to coincide. In arguing for a poor law which should aim at its own extinction, in examining the schemes of R. OWEN (1819) (*R. Owen's Life*, vol. i. p. 129, vol. ii. pp. 237 *et seq.*), in advocating benefit clubs with old-age pensions (J. Woodson, *Some Suggestions for the Improvement of Benefit Clubs*, 1824), in seconding Huskisson's and J. Hume's reforms, and in cross-examining witnesses before the committee on agricultural depression, 1821 (Hollander, pp. 105, 109), he did good work. He also proposed to pay off the national debt in one year at about £70 for £100, and to levy duties and grant bounties on corn just enough to countervail exceptional taxation, if any, on British agriculture (Hollander, pp. 58, 98, 99, 115). Perhaps no modern writer or speaker engaged in so many polemics and discussions and yet so completely eliminated the element of self.

M'Culloch's dictum, though tinged with the affection of a friend, may give the present generation some idea of the influence Ricardo had in his time. "The brevity with which Mr. Ricardo has stated some of his most important principles, their intimate dependence on each other, the fewness of his illustrations, and the mathematical cast he has given to his reasonings, render it sometimes not a little difficult for readers unaccustomed to such investigations readily to follow him. But those who give to his works the attention of which they are so worthy, will find that he is remarkably consistent in the use of terms, and that he is as logical and conclusive as he is profound and original. It was the opinion of Quintilian, that the students of eloquence who were delighted with Cicero, had made no inconsiderable progress in their art, and the same may, without hesitation, be said of the students of political economy who find pleasure in the works of Ricardo: *Sciat se non parum profecisse cui Ricardo valde placebit*" (M'Culloch, *Literature of Pol. Econ.*).

(*a*) *High Price of Bullion*, 1809, 4th ed. with app., 1811.—(*b*) *Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee*, 1811.—(*c*) *Essay on the influence of a Low Price of Corn on the Profits of Stock*, 1815.—(*d*) *Proposals for an economical and secure Currency*, 1816.—(*e*) *Principles of Political Economy and Taxation*, 1817, 3rd ed. (altered) 1821, ed. by E. C. K. Gonner (introduction, bibliography, and notes) 1891, first six chapters ed. by W. J. Ashley, 1895.—(*f*) "Essay on the Funding System" in *Ency. Brit.*, 1821.—(*g*) *On Protection to Agriculture*, 1822.—(*h*) *Plan for a National Bank*, 1824.—(*i*) *Observations on Parliamentary Reform*, 1824.—(*k*) *Notes on Malthus's Political Economy* (unpublished) see M'Culloch's Memoir, and Hollander, p. 84 n. i.—(*l*) *Speeches:* (1) On Western's Motion for . . . resumption of Cash Payments, 1822; (2) On voting by Ballot, 1824; (3) 126 in Hansard, not trustworthy, analysed by E. Cannan, *Ec. J.*, 1894; (4) on Owen, *Times*, 28th June 1819; (5) on J. Hume, cited Hollander, pp. 123-125.—(*m*) *Letters:* (1) three on the national debt, viz. Two to Place, *Ec. J.*, 1893, p. 289, and one to R. Heathfield, cited by Gen. C. Palmer, *Speech on the State of the Nation*, 1832; (2) five to J. B. Say. *Mélanges et Correspondance de J. B. Say*, 1833; (3) eighty-eight to Malthus, ed. J. Bonar, with preface and notes, 1887 (cites m. 2); (4) forty to M'Culloch, ed. J. H. Hollander, with preface and notes, 1895; (5) one on the currency to H. Trower in *Ec. J.*, 1896, p. 64; (6) twenty-one others to Trower, 1820-3, on corn values, notes to Malthus, Irish land, etc., unpublished, in University College, London; (7) Personal letters privately printed 1891 (Hollander, p. 138), and in the possession of Mrs. F. Ricardo.—(*n*) His examination before the secret committees on resumption of cash payments is given in *Reports from Committees*, 1819, vol. iii. (No. 282), pp. 133, 227; (No. 291) pp. 184, 196.

[*Ricardo's Works*, ed. M'Culloch (1846) contain a Memoir and (*a*) to (*i*), and (*l* 2).] J. D. R.

The importance of Ricardo's position in the history of economic theory is shown most clearly by the nature and vehemence of the criticism with which it has been assailed or supported. Whatever view a critic holds he rarely if ever fails to leave his readers with the conviction that for good or for evil Ricardo's influence has been a powerful force. While much of the diversity in views thus expressed arises out of the different attitudes which modern writers hold as to the correct method of study, much is doubtless due, first, to some definite defects in Ricardo, and secondly, to certain misunderstandings with regard to his works. Among the former may be mentioned —(1) A singularly defective literary style. Not only was Ricardo's vocabulary painfully limited, but he further increases the difficulty arising

out of a too great compression by the use of phrases and words in their more unfamiliar meanings. (2) His assumption of the almost absolute potency of regular competitive forces. This is, it must be admitted, qualified in certain instances; but speaking generally, deviations are treated as temporary and accidental. (3) A frequent reliance on hypotheses which are either obscurely stated or not stated at all. On the other hand, some part of the hostile criticism to which his writings have been exposed has had its origin in (1) the ready but erroneous acceptation of his main publication as being in his view a systematic treatise in economics; (2) the assumption that he was unwilling to recognise the validity of any but the most rigidly economic considerations. With regard to the first of the foregoing, the words of the preface to the *Principles of Political Economy and Taxation* are sufficient to disprove any intention on Ricardo's part to put forth a systematic treatise, so unequivocal is his own statement. Speaking of himself, he says: "It will not, he trusts, be deemed presumptuous in him to state his opinions on the laws of profits and wages, and on the operation of taxes. If the principles which he deems correct should be found to be so, it will be for others more able than himself, to trace them to all their important consequences"; while in what are almost the opening words he indicates as his subject an investigation into the laws which determine the proportions in which the total produce is divided among the different classes of the community. With regard to the second point, the publication of his letters to Malthus within comparatively recent years has done much to correct the exaggerations which formerly prevailed. But even when such misapprehensions are removed there remains considerable ground for criticism as to his methods and works. A final judgment as to their value must take into consideration certain other matters, as to the state of economics at the time when he wrote, and the alterations which he introduced into the treatment of certain portions of his subject. His influence and the importance which has been attributed to his work rest on these even more than on the positive contributions to the knowledge in particular directions contained in his exposition. First of all ranks the prominence which he gives to the problem of value in the general treatment of economics, and in particular in relation to distribution. In the second place, his qualitative treatment of wages, profits, and rent amounted to a kind of revolution in method. Lastly, it must not be forgotten that so far as distribution and exchange are concerned, Ricardo, however faulty in his own scheme, did much for his time by actually presenting a scheme that was coherent, and which, while requiring in some cases modification, in others reconstruction, afforded even hostile critics the benefit of something to criticise. In certain early stages of a study, systematic, even if inaccurate, statement is a matter of such fundamental importance that its subsequent correction or supersession should not avail to blind the eyes of later generations to the benefits conferred by the scholar who boldly endeavoured to combine and connect the floating opinions of his time. In this respect Ricardo did much. He brought the matter as it were out of the air, and in respect of certain problems endeavoured to sketch a definite plan. This will be seen best of all by a consideration of his writings, after which his more special contributions will require notice.

Ricardo's economic writings may be divided according as they deal with general economic theory, taxation, currency, and agriculture and protection. While this order has been chosen for purposes of convenience, it is the reverse of his historical arrangement—a matter of no little importance, inasmuch as it shows that instead of proceeding from the formulation of certain general principles to particular subjects, he approached the former through his study of the latter, and hence was likely to bring with him a not unnatural prejudice in favour of the methods which he had found useful in resolving the problems to which he first applied himself. Viewed chronologically, his *Principles, etc.*, is preceded as well as followed by writings on currency and the price of corn.

In the *Principles of Political Economy and Taxation*, without doubt the most important with regard to the general treatment of economics, there are three leading subjects of discussion — value, wages and profits, and taxation. Taking, however, the professed aim of the book, it would perhaps be even better to say that it falls readily into two portions—one concerned with the mode in which the wages and profits are proportioned, the other with the effects of various taxes, preceded by a preliminary discussion on value as a necessary principle to their respective determination. As has been elsewhere indicated, the somewhat desultory arrangement of the work, and especially of the later chapters, tends to conceal the definite aims which Ricardo explicitly had in view, which are stated above. A better classification of the chapter would make this clearer. He begins by a discussion as to the nature of value, and the possibility of a perfect standard of value, in which he arrives at the position that commodities exchange in the ratio of their respective cost in terms of labour. With regard to this there are two important qualifications. Labour is the common unit of exertion, in quantitative terms of which all labour, skilled and unskilled, and all capital, are capable of representation. Such exchange or value, while the natural, is not necessarily the market rate, which varies owing to accidental and temporary causes. In defining value, a distinction is drawn between relative value and absolute value; while the meaning of the former term is not in doubt, absolute value or real value is a conception which requires some

little consideration, for it is to its somewhat careless use that some of the misunderstanding of Ricardo's theory of value is due. Strictly conceived, it corresponds to the relation existing, not between commodities amongst themselves, but betweeen any commodity and its labour-cost. If the quantity of labour required in the production of a commodity diminishes, the real (taken for absolute) value falls; if it increases, the real value rises. In most cases, it is obvious, alterations in real value, thus achieved, will be followed by changes in the relative or exchangeable value, for a constant competition is assumed; but if, owing to the progress of invention, there be a general diminution in the amount of effort, or of capital and labour combined, needed to produce a certain quantity or mass of commodities, this given quantity after the improvement will be of less absolute value than before. In other words, while there cannot be a general rise or fall in relative value, there may be a general rise or fall in absolute value. This follows as a matter of course from an attempt to view value as Ricardo viewed it, as the estimate which the individual forms of any commodities as measured by the trouble they cost him. On this conception Ricardo does not dwell at great length, as alien to his purpose, "as the inquiry to which I wish to draw the reader's attention relates to the effect of the variations in the relative value of commodities, and not in their absolute value." The relative value of a commodity represents the degree in which it, as compared with other commodities, partakes of absolute value; thus he speaks of "the relative quantity of labour" as almost exclusively determining the relative value of commodities.

With regard to the definition of value and the use of the term by Ricardo, several points arise for remark. In the first place, the conception of absolute value has been attacked apparently on the ground that it is inconsistent with the view that value is essentially a matter of ratios. This objection does not seem very important in view of the great weight attached to relative value, the small use of value in any other sense or other connection, the somewhat like inconsistency in the more recent use of utility in the utility theory, and lastly the necessity of giving some reason for the relation in which various commodities stand to one another. Such terms as "utility," "estimation," "cost," and the like might have done as well, but the employment of "absolute value" in their place does not seem to require severe condemnation if a careful distinction be drawn between absolute and relative value. In the second place, what is at best a loose phraseology has given rise to doubt as to whether Ricardo did not in some sense regard labour-cost as a cause as well as a measure or index of value. Though the general study of the passages relating to this subject goes far to show that he did not actually fall into this confusion so far as he himself was concerned, his language is inconsistent, and open to grave objection. Lastly, he does not take into consideration the alterations in cost which ensue from differences in the quantities produced.

The discussion of the laws of value issuing in the above conclusions is, like the conclusions themselves, a preliminary to a consideration of the laws underlying distribution. No sooner are these approached than their meaning and importance become manifest. They afford the necessary means, the proportional division of the entire product, whatever be the productiveness of the energies of the community, whether they issue in much or little, does not matter, for the question is one of value; "it is not by the absolute quantity of produce obtained by either class that we can correctly judge of the rate of profit, rent, and wages, but by the quantity of labour required to obtain that produce." By treating the problem as one of value, one important result is immediately obtained, for it becomes obvious that rates of remuneration, wages, and profits cannot be a cause of price; that a rise or fall in them cannot occasion a corresponding rise or fall in price. Price being the mere expression of relative value in particular terms, such a consequence would mean a general rise or fall in relative value, or in the ratios in which commodities exchange.

But it may be urged that this position is invalidated by the payment or existence of RENT. Value is a ratio, but in the case of certain commodities their place in the ratio is determined partly by the necessity under which producers are of paying rent? Rent is, however, an exceptional payment, and wholly outside the question of relative or exchange value, which is determined by the relative quantities of effort expended under the most unfavourable circumstances. Thus the total rental of the country is the total surplus of produce obtained by labour exerted under more favourable conditions over that produced by labour under the most unfavourable conditions. An increase in rent coincides, then, with an increase in absolute or real value, and rent itself is formed by the excess of the total absolute value of the produce of the community over what would be the total absolute value were all conditions of production equally favourable. In other words, it is the difference between the actual value in cost of the more favourably produced portions of commodity and the relative value which is given them owing to the LAW OF INDIFFERENCE, and the impossibility of exchanging them at a different ratio from that which holds in the case of the portions produced most unfavourably. It stands wholly outside relative value; the total value remains to be divided among the factors engaged in production. Whatever is not allotted to one is taken by another. The rate at which any one is remunerated depends not on the quantity of commodities received, but on the proportion in which it shares in the whole, and thus a rise in the rate of remuneration of any one class necessarily implies a fall in the case of some other. In this case, as indeed throughout, it has been assumed that all exertion both of capital and labour is capable of treatment in terms of simple labour units in such a manner that with due allowance for temporary deviation, the law of equal reward for equal effort operates. Even in the relations prevailing between the remuneration of different kinds of labour the deviations deserve more than the passing consideration given to them, while between capital and labour, strictly so termed, equality in remuneration

through free competition cannot be said to hold good. In the discussion which ensues as to the division of value between profits and wages, Ricardo, passing by any analysis of interest, centres himself in wages and formulates the doctrine of the variable standard-of-comfort theory, which, with the suppression of the qualifying adjective, has obtained prominence in subsequent controversies as the iron law. Into profits falls the remainder—what is left, that is, after labour has been paid the amount necessary to maintain the necessary level of comfort, and without diminution in its numbers. The uncritical neglect shown in the absence of any treatment of interest is a very great defect in this connection.

TAXATION, which forms the substance of most of the later chapters of the *Principles*, is mainly dealt with from an abstract standpoint, and with the object of ascertaining the ultimate incidence of different taxes. Considerable reference is made to the laws regulating distribution, and in particular to the effect which the standard-of-comfort theory may have in shifting the burden of taxation from the working class to those presumably more able to bear it. In place of regarding the incidence of taxation as being mostly if not invariably on the land, like many of his forerunners, Ricardo contends that taxes may be paid out of three funds—from rent, from the pockets of consumers above the standard of comfort, and from profits, or, if we take his wages theory in its most rigid form, from rent or profits.

In the third group of writings—those, that is, which relate to CURRENCY, Ricardo is at his best. At one and the same time, we find a subject which stood in need of severely logical treatment, and we encounter Ricardo in much fuller mastery than elsewhere of the facts which relate to the matters at issue. Here he is both abstract and inductive. Facts come in sometimes as illustrations which vivify and correct his argument, and sometimes as the very body of the argument itself. The matters dealt with in the financial pamphlets and chapters fall under three headings: (1) the high price of bullion and the depreciation of paper money; (2) monetary theory; (3) the position of the Bank of England. These questions, actually cognate, had at that time an additional if artificial link by reason of the action of the Bank, which, an important agent in the first, conduced through the observation of the effects of its activity to certain important general conclusions. (1) The first question thus indicated occupies the principal part of the two treatises, *The High Price of Bullion*, and the *Reply to Mr. Bosanquet's Practical Observations*. After a few preliminary remarks as to the existing standard in England, Ricardo turns to the discussion of, first, the means at his disposal for testing the value of paper money, and secondly, the action of the Bank with regard to its issue. The means he sets forth as twofold. On the one hand, there is the continuance of heavily adverse exchanges. While such adverse balances may often occur, the extent to which they can continue thus unfavourable is, he urges, rigidly limited by the expenses attending the exportation of the precious metals. On the other hand, there is the continued elevation of the market price of bullion above the mint price. Here his contention is "not that gold as a commodity may not rise above its value as coin, but that it cannot continue so, because the convertibility of coin into bullion would soon equalise their value." The point remaining to be considered was as to the power of the Bank to force an undue amount of paper upon the country. Here he replies with remarkable clearness, and in passages many of which rank as classical, to the various contentions raised by the friends of the Bank. He disposes briefly of the argument that it is impossible to augment a currency already adequate by explaining the meaning of "redundant" and "adequate" in this connection, and he points out that the limitation of issue of paper to *bona fide* transactions is no safeguard. (2) So far as general monetary theory is concerned, the above pamphlets, together with the *Proposals for an Economical and Secure Currency*, and chapter XXVII. in the *Principles, etc.*, contain the most systematic contributions. The main conceptions treated of relate to (*a*) the quantity theory of money, which is carefully delineated and afterwards applied to the particular case of paper issues; (*b*) the distribution of the precious metals throughout Europe, and the conditions under which modifications of the existing distributions may take place; (*c*) the nature of a standard of value and the use of the precious metals as such. In all these directions he made remarkable additions to the knowledge of the time, while even now his writings stand in the very first rank of monetary exposition. In certain instances, as in the case of a double standard, and what is substantially the system of INDEX NUMBERS, his conclusions, though many economists of the present generation may differ from them, were almost inevitable under the circumstances of the time as to both knowledge and the existing political conditions. (3) As regards the position of the Bank of England, he concludes a biting survey of its action towards the public both as regards the issue of paper money and in sundry other and more general aspects with the contention that the time had come for a very radical change. The direction which this should take is set forth at considerable length in the *Plan for a National Bank*.

Agricultural protection and the importance of a low price of corn form the subject of two pamphlets: *An Essay on the Influence of a Low Price of Corn on the Profits of Stock*, and *On Protection to Agriculture*, in which Ricardo, basing his arguments on the theory of rent, set forth mainly by Malthus, combats the proposition that agriculture requires particular protection. "With a permanently high price of corn, caused by increased labour on the land, wages would be high; and as commodities would not rise on account of the rise in wages, profits would necessarily fall. . . . Profits would not fall in one trade only, but in all. . . . In this view of the law of profits, it will at once be seen how important it is that so essential a necessary as corn, which so powerfully affects wages, should be at a low price; and how injurious it must be to the community generally, that, by prohibitions against importation, we should be driven to the cultivation of our poorer lands to feed our augmenting population." In addition,

an irresistible temptation is, he urges, offered to capitalists to quit the country. Moreover, the high prices thus attained are unstable. These pamphlets, which are very unequal, are Ricardo's contribution to the anti-corn law movement, which was slowly shadowing itself forth (see ANTI-CORN LAW LEAGUE).

In addition to writings dealing with the subjects mentioned in the previous paragraphs, Ricardo wrote an *Essay on the Funding System*, in which he deals with the history of the sinking fund, and the various modes in which war expenditure may be met.

While general economic theory was greatly affected by Ricardo's treatment of certain branches, its special development in particular directions was equally due to what may be described as direct and more original contributions to knowledge. Of these, those relating to foreign trade, money and paper issues, and rent, have attracted and deserve chief attention. In these instances his work holds its high position either because of actual originality in doctrine, or because it is so original in statement and combination of ideas which previously were but faint and uncertain suggestions, or wanted their true value through their lack of conviction. With regard to foreign trade, he established the doctrines of comparative cost, and laid down the mode of the distribution of the precious metals. In the treatment of money we owe to him the logical statement of the quantitative theory which led to the clear and comprehensive view of the nature of paper money which we find in his pages (see QUANTITY THEORY OF MONEY). The theory of RENT was restated—while the explanation of its origin in the difference of yield to successive applications of capital and labour is so important as to merit the position of an original contribution.

But while in these respects economic study lies under a very great debt to the writings of Ricardo, in certain other respects his influence, or perhaps more truly that of his followers, was disadvantageous to its sound progress. Though a rational and temperate criticism will relieve him of the responsibility for the particular form of wages theory known as the Iron Law (see LAISSEZ FAIRE), as even HELD admits, his unfortunate mode of expressing himself did much to lead to the socialist conception of value as due to labour and labour alone. But here he and indeed Adam Smith also are to blame rather for defective and careless expression than for bad thinking, while in addition it must always be remembered that in Ricardo's view capital as well as labour was a necessary element in the determination of cost. To the enunciation of this particular point he devoted an important section of his chapter on value. But there are two other defects in English economic writings of the early part of this century which are largely due to the influence acquired by these writings. In them the human agents in economic growth and organisation are treated as inorganic rather than organic units, and as liable to elimination or supersession with no more result than would occur in a physical experiment. They are things of wood rather than of flesh and blood, and are swept round and round in the whirl of competition, to be succeeded in the course of time and development by others disconnected with them by any vital bond. This apparent conception of society as a mechanical rather than an organic unity, though by no means consciously acknowledged, was an obvious bias of the group of thinkers among whom Ricardo moved, and who on the economic side were his disciples, and has remained until recently as somewhat characteristic of economic thought in England. The fault lies not of course in the rigid adhesion to the conditions of hypothesis, but in the lack of a vivid permanent realisation of the other features and elements to be taken into account in the application of theory. The second of the two defects mentioned above is one for which his followers rather than Ricardo himself are to blame, for despite his warnings they chose to elevate his principal writings to the rank of a treatise, thus attaching the title of political economy to what was a partial treatment of but one branch of the subject. In this even they did not stand alone, but their action did much to narrow economic study and to mislead popular opinion into misconception as to the nature of political economy.

The incomplete character of Ricardo's work, with its splendid merit and its frequent defects, is largely due to the period in which it was produced. Like Adam Smith he worked and wrote in the very early dawn of sound economic study, and their progress is that of men walking in the morning twilight of science. Others have entered into their labours. If we wish to gauge the true importance of such, and especially if we wish to arrive at some general conclusion with regard to the position of Ricardo, we must take into account the time at which he wrote as well as his writings, and estimate the value of the latter as the necessary preliminary to much subsequent work on theory, and as affording by the distinctions contained, by the relations indicated, and by the generalisations arrived at, often crude, sometimes erroneous, and in most cases tentative rather than final, opportunity for much inductive inquiry.

E. C. K. G.

RICCI, LUDOVICO (1742-1799). Born at Castagneto, near Modena, Central Italy; he filled different offices in the duchy, chiefly connected with reforms in charity organisation and taxation. In 1797, after the revolution, he became one of the directors of the Cispadane republic; when this became merged in the Cisalpine republic, the directory appointed him minister of finance. He employed himself during his ministry in reorganising the taxes and the treasury of the republic, then empty; and drew up, by order of Napoleon, a plan of financial reforms which was highly esteemed by him. In 1798 Ricci was made general commissioner of the taxes of the republic, and died shortly afterwards.

Ricci left many papers, some unpublished, on economic and financial questions. The most important is the *Riforma degli istituti pii della città di Modena*, a valuable monograph, full of historic and scientific statistics. The depressed condition of the lowest stratum of the working classes in Italy,

during the time of Ricci, compared with the fairly favourable condition of beggars, to some extent sheltered and relieved by charitable institutions, showed the necessity of a better distribution of the assistance given. The economic problem of the administration of charity forced itself on the government of the Italian states, rich in charitable institutions, and several governments studied the question. At Modena the investigation of the subject was entrusted to Ricci; hence his valuable work, which far surpasses the limits of a monograph relating solely to a small state. He treats the subject of the reform of charitable institutions from a rational and systematic point of view, studying the problem deeply, and analysing the origin of charitable institutions which have their root in the moral and religious feelings of man, and tracing historically the progress and influence of such institutions. He further examines the causes of beggary, the vices and wants of the different classes of the poor, and maintains that the reorganisation of charity should be based on the elevation of moral character.

He shows the economic disadvantages of an improvident system of public charity, that it tends to the increase of beggary and of the numbers of the poor. It is necessary, says Ricci, that they should shake off their indolence and either emigrate or perish. Their indolence is fostered by alms-giving, which supplies a continuous stimulus to beggary, which increases proportionately to the development of charitable systems. Those poor only who are unable to work should be relieved, those able to work helped solely by work being procured for them. Following these lines, he examines minutely the charitable institutions of the town of Modena, shows the numerous evils they cause, and proposes a series of gradual and progressive reforms calculated to transform them completely. These reforms in great measure are in accordance with modern ideas.

Ricci's views on population are interesting theoretically. He has been called a precursor of Malthus; but, though he touches on the population question, he regards it from a different point of view from Malthus, and more closely approaches modern scientific conclusions. He has in fact the idea of a relative excess of population, apart from its absolute excess, and asserts that though the increase of population may be at a minimum, yet the lowest stratum may be in a most miserable condition. From these conceptions, which, however, Ricci merely points out without fully developing, he deduces his maxims for directing the organisation of charity so as to alleviate misery without fostering it.

Among his unpublished manuscripts Ricci left an outline of a treatise on taxation, conceived with a width of view, originality of plan, and deep learning, which he was not able to finish. He considered social economy a dynamic system of force, which sometimes acts in contrary ways, destroying itself by its own results. He regarded taxation as a moderating element in eliminating the causes of this dispersion of prosperity.

Riforma degli istituti pii della città di Modena, Modena, 1787. *Nuovo piano dell' estimo per gli Stati Estensi*, Modena, 1791. (See Augusto Setti, "Lodovico Ricci e la beneficenza pubblica nel secolo scorso," in the *Nuova Antologia*, 1st October 1880.

[Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, Modena, 1893.] U. R.

RICHARD DES GLANIÈRES (belongs as a writer to the second half of the 18th century).

In 1774 he presented to Turgot his *Plan d'Imposition économique et d'administration des Finances*, on which he was congratulated by the body of merchants of La Rochelle; he maintained his scheme in the *Réplique générale pour le présent et l'avenir aux observations faites et à faire sur son plan* (1775), and in the *Dixme royale de M. le Maréchal de Vauban comparée avec le plan d'imposition de M. R. D. G.* (1776).

He is an admirer of TURGOT and an advocate of free trade in corn, which he supports by the authority of SULLY. In his financial plan, which he regards as derived from VAUBAN, he would remove all the then existing internal customs duties to the frontier and would do away with the whole existing system of internal taxation, establishing instead, first, a graduated poll-tax, to which he gives the title of *droit de franchise*, calculated on the estimated consumption of each tax-payer, and secondly a real TAILLE or direct tax on every kind of property, including annuities. His statistical basis of taxation must certainly have been faulty, for he computed that about 800,000 persons would pay 200 francs (say £8) or more, but in 1847, when this amount was the legal qualification of a voter, there were shown to be only 250,000 persons directly taxed to this amount in France.

[E. Fournier de Flaix, *Les théories fiscales en France et en Europe aux XVIIe et XVIIIe Siècles* (vol. i. of *La Réforme de l'Impôt en France*), pp. 217-220, Paris, 1885.] E. Ca.

RICHELIEU, A. J. DU PLESSIS, CARDINAL DUC DE (1585-1642). Cardinal Richelieu deserves a place in economic history not so much on account of what he did as on account of what he failed to do. The central administration of monarchical France was on the whole a very efficient machine, but it had one fatal defect—the financial system was extraordinarily bad. Adam Smith (bk. ii. ch. ii.) has clearly pointed out the inferiority of French to English finance in the 18th century, and there can be little doubt that this inferiority was one of the chief causes of the failure of France to hold her own in the naval and colonial struggle with her great rival. At the same time it was the chronic deficit due to defective finance, and the discontent aroused by ill-devised and oppressive taxation, which led directly to the downfall of the French monarchy and social framework in the revolution.

It would, of course, be absurd to make Richelieu responsible for economic blunders, many of which were far older than his administration. At the same time it must be admitted that his failure to introduce financial

reforms did much to stereotype evils which none of his successors were strong enough to cope with. Richelieu was the one man in French history who had the strength both of will and of position which might have enabled him to trample on the opposition of the powerful classes whose interests impelled them to oppose reform. Some of the most obvious of the existing evils were the exemptions enjoyed by the privileged orders—the system of selling offices and of farming the indirect taxes (see FARMER-GENERAL; FARMING TAXES), the oppressive incidence and excessive amount of the TAILLE, and the almost ludicrous harshness and inequality of the GABELLE.

Richelieu was no trained economist, but that he was keen-sighted enough to realise the need for reform on these points is proved by innumerable passages in his memoirs, and also by a draft of proposed changes which he drew up for the king in the first year of his ministry. But he never made any serious attempt to carry his schemes into practice; on the contrary, in his later years the pressure of military expenditure led him to strain to the utmost all the old expedients, and to impose the most oppressive burdens on the tax-payers. And so immense was Richelieu's prestige and the weight attached to his example during the next century and a half that his financial maladministration may be said to have done as much for the ultimate weakening of France and her monarchy, as the triumphs of his foreign policy effected for their immediate exaltation.

At the same time it would be unfair to lay too much stress on this negative side of Richelieu's domestic administration. He reformed the army and practically created the navy of France. He did all in his power to encourage the growth of a mercantile marine, and to extend French commerce and colonisation. It is true that many of his schemes were costly failures, and that French companies too often added to the general defects of such corporations an excessive dependence on state patronage. Still it must be admitted that Richelieu is entitled to some measure of the credit which is usually given to COLBERT for that stimulus to economic and commercial progress which helped to make France for a time by far the first power in Europe.

[D'Avenel, *Richelieu et la Monarchie Absolue.*—Caillet, *L'Administration en France sous le Ministère du Cardinal de Richelieu.*—Hanotaux, *Histoire de Richelieu.*] R. L.

RIDOLFI, COSIMO (1794-1865). Born in Florence, of noble family, of great literary and scientific attainments, an educationalist and minister, and, in particular, a distinguished agriculturist. He travelled widely to carry out his study of agriculture. Ridolfi occupied himself greatly with the condition of Tuscan agriculture, and worked, with good results, to improve it practically. He established at his farm at Meleto a school of practical agriculture, mainly to supply practical instruction in this subject to the sons of landed proprietors. At the same time he interested himself in improving the condition of the peasant class. After this, at the university of Pisa, Ridolfi taught agriculture and founded a school for instruction in the subject there. He was one of the ministers of Leopold II., grand duke of Tuscany, in 1849, then plenipotentiary at Paris and London. In 1859 he became a minister with the Tuscan government, and afterwards a senator of the kingdom of Italy.

He wrote many important papers on agriculture and agrarian economics, published in the *Atti della Accademia dei Georgofili di Firenze* and in the *Giornale Agrario Toscano.*

[Lambruschini, *Elogio del Marchese Cosimo Ridolfi, agronomo fiorentino*, Florence, 1866.] U. R.

RIGHT TO LABOUR. A party watchword is often said to be most popular when ambiguous. This condition is satisfied by the "right to labour," which may be understood in two quite different ways. It may be taken to mean a right, moral or legal, of able-bodied persons, rendered destitute by exceptional circumstances, to temporary maintenance out of the public funds, labour being indicated as at once the test of destitution and the channel through which, by the wages paid for it, relief is administered. Or it may mean a supposed natural right of every citizen at all times to have secured to him by the state, when he alleges that he cannot find it for himself, employment of the kind he is fitted and has been trained to perform, so remunerated as to enable him to support his own existence and that of those dependent on him. It is in the latter sense that the phrase was for some time widely current in continental politics; and most of the democratic agitators who asserted the *droit au travail* would have repudiated as inadequate, and perhaps as degrading, the interpretation which would make it equivalent with the *droit à l'assistance.*

Some writers have erroneously supposed that this right was asserted by the PHYSIOCRATS. What they claimed for every member of the community was not the *droit au travail*, but the *droit de travailler*, which was altogether different, implying only a right to the removal of all restrictions which impeded industry and prevented the poor man from living by his labour. "Ce que l'état doit à chacun de ses membres," said TURGOT, "c'est la destruction des obstacles qui les gêneraient dans leur industrie"; and, in proclaiming this *droit de travailler*, what he had mainly in view was the abolition of the GILDS and other privileged corporations (see CORPORATIONS OF ARTS AND TRADES).

FOURIER was the first to introduce the claim, and the phrase associated with it, into the literature of social economy. In his earliest work, the *Théorie des quatre mouvements* (1808), and in his later *Théorie de l'unité universelle* (1822), he formally asserted the right, but

declared it to be impossible to realise it under "the régime of civilisation," that is to say, the existing economic order of society. He declares it to be the first and most important of the rights of man, without which all the rest are valueless. It is, according to him, the equivalent due to each individual of the means of subsistence by natural products, which every one possessed in the primitive state of barbarism, and parts with on his entrance into society. Considérant rests it on the same theoretic basis; he urged its practical adoption as a means of transition from the present to the future (Fourierist) order of things. ST. SIMON also appears to assert the right; but his want of scientific precision and his frequent self-contradictions make it difficult to affirm this with certainty. Louis BLANC conceives the right as a corollary of the right to existence, which he alleges to belong to every man at his birth, as a gift from his Maker.

The right to labour came avowedly into the field of practical politics at the revolution of 1848. By the decree of the 25th of February (see ATELIERS NATIONAUX) the provisional government announced that it "s'engage à garantir du travail à tous les citoyens." These words were dictated by Louis Blanc. J. S. MILL maintains that the *droit au travail* thus sanctioned meant "the poor-law of Elizabeth and nothing more." If more was not intended, it must be admitted that the authors of the decree were singularly unfortunate in the language they used. Louis Blanc seeks to shelter himself from blame by quoting Mill's view; but his opinions and objects, as stated by himself, are irreconcilable with that view. He says that the engagement which the government was undertaking—involving, as it did, "vast difficulties"—was intended for future, not immediate realisation, and that it could not be brought into practical operation except by the introduction of his own socialistic schemes. What he really aimed at, as he frankly informs us, was to lead the government to adopt those schemes by inducing them to issue the compromising decree. Whatever that decree may have meant, it is certain that when the bourgeoisie triumphed over the revolution, it was only a right to relief that was recognised in the constitution, and statesmen who had seemed to give the principle a wider construction explained away what they had previously said.

In Germany, FICHTE maintained the right as a consequence of the social compact (*Naturrecht*, 1797). Under French influence it was advocated by Ludwig Gall, the Fourierist Stromeyer, MARLO, and others, and the recognition of it was proposed in the Frankfort parliament, but without success. It was asserted in the broadest manner by Bismarck in the Reichstag in May 1884: "Ich erkenne ein Recht auf Arbeit unbedingt an"; but he took no step to carry it into effect. In Switzerland, it was made the subject of a REFERENDUM in 1894, and was supported by 75,880 against 308,209 votes. But though it was for a considerable time a favourite cry of the radical democracy of the continent, in England it never made any appreciable impression; it has been abandoned by the socialists, who now recognise, with Fourier, that it is unattainable under the existing conditions of industry, whilst it would be an immediate and spontaneous result of the establishment of the new organisation which is the goal of their efforts. It is, indeed, obvious that its practical adoption would lead directly to a socialistic system (see SOCIALISM). The members of a government undertaking to provide every applicant with labour such as he has learned to perform would become ENTREPRENEURS on the largest scale, agricultural, manufacturing, and mercantile, with a host of subordinates acting as overseers; and the private employer would be driven from the field.

When it is seen that there are no such things as natural rights, the right to labour disappears with other similar coinages of metaphysical politics. But when we approach the subject from the side of duty, the course to be followed seems sufficiently plain. Some regular means of relieving destitution should exist to meet the exigencies of individuals, and when they can perform work, it is reasonable to expect it from them as a partial return for the assistance they receive. When a great public calamity, such as failure of crops or a commercial crisis, plunges considerable districts of a country into distress, the government can best intervene by employing the able-bodied, who are without their ordinary means of support, in useful public works, whilst gratuitously maintaining the immature, the aged, and the infirm. The management of public works under these circumstances has obvious difficulties, but difficulties are no sufficient reasons for abstaining from action. The principal are those of determining who are fit objects of this sort of public aid, and what are the best works to be undertaken. On the ground of this double difficulty, such works will be more properly placed in the hands of local authorities than in those of the central government, though at least a share of the required funds ought to be supplied from the national exchequer, and consequently a power of general supervision should be reserved by the national executive. Even in such extreme cases, government, whilst bound to do their utmost towards *providing* labour, ought scarcely to *guarantee* it to all, such a promise being only too likely to prove incapable of fulfilment, whilst it would tend to stifle the exercise of private benevolence.

In ordinary times, one of the most serviceable kinds of action open to them for the benefit of the unemployed is the establishment of BUREAUX

OF LABOUR, having for their function the collection and circulation of trustworthy information as to the demand for labour in different localities.

[Arts. on MONTAIGNE; RENAUDOT; and for a detailed historical account in *Das Recht auf Arbeit in geschichtlicher Darstellung*, by Rudolf Singer (1895), and an instructive article by George Adler in the *Handb. der Staatswissenschaften*.—Also Louis Blanc's *Hist. de la Révolution de 1848*, and his *Révélations*.—Bonar, *Philos. and Pol. Ec.*—Ritchie, *Natural Rights*.—Jevons, *The State in relation to Labour*.] J. K. I.

RILEY, HENRY THOMAS (1816-1878), a distinguished antiquary, edited and translated a large number of the most valuable "sources" for English municipal history in the middle ages.

For the Rolls Series, Riley edited the *Munimenta Gildhallæ Londoniensis* (1859-1860).—For the Corporation of London, he translated the *Liber Albus* (1861), and a volume of extracts from the city archives for the period 1276-1419, under the title *Memorials of London and London Life* (1868).—For the Hist. MSS. Commission he inspected and reported on the archives of various municipal corporations (from 1869 onwards). But this by no means exhausts the list of his works. W. J. A.

RIN, a coin, the 1000th part of 1 yen (see YEN), 1000 rin = 100 sen = 1 yen (Japan).

RING. A ring in American politics is a group of partisans who agree to work together in order to get paid, elective, or public appointments apportioned among themselves in a certain way. The Tweed ring went further than this; and the officers when appointed agreed to exclude financial criticism. In Europe a ring is non-political, and means (1) an agreement (2) by capitalists (3) to exclude competition, and (4) so control and dictate terms to the market. (1) Monopolies are founded on privilege; and American trusts, French omnium, and English amalgamations, involve transfers of property, but rings are mere agreements. The agreement takes many forms. It may be an agreement not to sell on a given day below a certain price; or, as in the perfected *syndicats industriels* of the Continent, to create permanent agents who sell what members produce and pool profits according to elaborate rules. These agreements are usually void at law, either because they are "against public policy," as in England and U.S., or "against free trade," as in France, or against a law, *e.g.* the Austrian Law of 7, iv., 1870, § 4; indeed they are often called "gentlemen's agreements," "presidents' conferences," "consensus," as opposed to contracts (G. O. Virtue, p. 314). (2) Labourers' unions are not rings but sometimes join rings (*Ec. J.*, 1897, pp. 503-510). Subtler rings take in allied trades, thus American coal-rings, in imitation perhaps of the Newcastle VEND, are formed of carriers and producers. (3) It often kills competition by rebates, differential freights, maximum and minimum tariffs, and by recklessly underselling opponents—operations which resemble retaliatory tariffs and bounties between nations. (4) Control of the market and restricted production and enhanced price is the ultimate aim of all rings, *syndicats industriels*, trusts and monopolies. Hence efforts have been made to bring them within the criminal law. But the net has been spread too wide. The French Code Pénal (art. 419) penalises any combination to raise prices by not selling a commodity under a certain price; this, like our "engrossing" (see FORESTALLERS AND REGRATORS), hits all trade, and is therefore a dead letter. The Canadian Act of 1889 (52 Vict. c. 41, § 1 (b)) and U.S. Act of 1890 (§ 1) make contracts in restraint of trade criminal; now such contracts occur every day between shopkeepers and their former partners or assistants, so the judges held that this provision could only apply where dealers "practically control the entire commodity"—which is almost unprovable (52 *Federal Reports*, 104, 119). Other clauses of the Canadian act penalise contracts to unduly limit competitive production or sale—as though judges could tell where there is no over-production or unfair price. Similar objections were held fatal to an attempt made to bring a ring of shipowners within the English law of conspiracy ("Mogul S.S. Co. *v.* MacGregor," *Law Reports* (1892), App. Ca., p. 25; see Lord Bowen's judgment). There are many immoral practices on the part of rings; but competition, public opinion, and what Andrews calls "the tolerance of the market," have hitherto proved a more effective remedy than this abortive recrudescence of mediævalism.

[E. B. Andrews, "The Combination of Capital," in *International Journal of Ethics*, iv. 321.—"Trusts according to Official Investigation," in *Quarterly Journal of Economics* (Jan. 1889).—J. Bryce, *American Commonwealth*, chs. lxiii. lxiv. lxxxviii. lxxxix.—C. Buecher, "Les Syndicats Industriels," in *Revue d'Économie Politique*, Dec. 1894.—Von Halle, *Trusts or Industrial Combinations and Coalitions in the United States* (1895) (bibliography).—J. S. Jeans, *Trusts, Pools, and Corners* (1894).—J. W. Jenks, "Trusts in the U.S.," in *Ec. Journal*, 1892, p. 70.—Manuelov, *Industrial Syndicates*, St. Petersburg, 1895.—A. Menzel, "Les Cartels," in *Revue d'Éc. Pol.* (Nov. 1894).—T. C. Spelling, *Trusts and Monopolies*, 1893 (only legal).—Verein für Socialpolitik, *Ueber wirthschaftliche Kartelle in Deutschland und im Auslande* (1894) (perhaps the best).—G. O. Virtue, "The Anthracite Combinations," in *Quarterly Journal of Economics* (April 1896).] J. D. R.

RING MONEY, probably a specialised form of bar money; seems to have been in use at a very early period in the east, where, as in the west,

it preceded coined or stamped metal. That the Egyptians employed ring money is proved by their extant paintings, where heaps of rings of gold and silver are represented as weighed in scales. Some have thought that a metallic currency of this kind is alluded to in Gen. xliii. 21, where the sons of Jacob find their "money in full weight" in the mouths of their sacks.

Ring money still circulates in Africa, and under the name of *Manillas* is yet manufactured at Birmingham for African trade.

From the east, ring money probably found its way into Europe, and into Gaul and the British Isles, where Cæsar found it in circulation. "They use," he says, "either brass money or gold money, or, instead of money, iron rings adjusted to a certain weight" (E. Hawkins' *English Silver Coins*, pp. 8, 9, London, 1841, 8vo). One specimen found in Orkney is composed of three bars of gold twisted together like a cord. A remarkable silver chain of thirty-three rings weighing over ninety-three ounces, now in the Museum of the Scottish Antiquities, was dug up in 1805 near Inverness. About the middle of this century a hoard of silver ring money was found in the cuttings for the Waterford and Kilkenny railway, but unfortunately it was dispersed and lost with the exception of one ring, concerning which the Rev. Jas. Graves read an article before the Kilkenny Archæological Society on 16th March 1853.

[*Ency. Brit.*, "Money," quot. from Tylor, p. 283, also *Chambers's Ency.*, art. "Ring Money."]

A. L.

RISK (as element in cost of production) is the negative of the quantity which Laplace calls *espérance*, that is, probability multiplied by advantage. The advantage may be either "mathematical" or "moral," measured by value in exchange or value in use. When there is an even chance of obtaining a certain sum, the mathematical expectation of gain is exactly balanced by the risk; but the utility which would be lost by the subtraction of the sum is greater than what would be gained from the addition thereof. "Gambling involves an economic loss, even when conducted on perfectly fair and even terms" (Marshall, *Principles of Economics*, bk. iii. ch. vi. § 6, note 3rd ed.). Conversely, "a theoretically fair insurance against risks is always an economic gain" (*ib.*). The subjective "loss" is less, *ceteris paribus*, the less the "marginal utility" of money to the person incurring risk. This principle applies to the risk run by the capitalist entrepreneur, against which insurance is usually not available. The advantage which a large business has in being able to encounter risk has been lucidly pointed out by Professor J. B. Clark. The principle partly accounts for the growth of joint-stock companies.

Indemnity for risk, as explained by Mill (*Pol. Econ.*, bk. ii., on "Profits"), forms one element of gross profits. If we ascribe the other two elements—an "equivalent for abstinence," and "remuneration for the labour and skill of superintendence"—to interest and earnings respectively, remuneration for risk seems to remain as "pure profit."

It is difficult, however, to abstract risk from the care exercised by him who incurs it. "This use of the term" (profits), says Professor Marshall, "is on the whole not advantageous, because it tends to class the work of management with mere routine superintendence" (*Principles of Economics*, bk. vi. ch. viii. § 2, 3rd ed.). Risk, as an element of profit, appears in its purest form—most detached from labour of superintendence—in the case of joint-stock undertakings.

[Laplace, *Théorie Analytique des Probabilités*, ch. x. (De l'espérance morale).—Mill, *Pol. Econ.*, bk. ii. ch. xv.—J. B. Clark, *Quarterly Journal of Economics*, vol. v. p. 313 ("profit in an accurate sense of the term . . . results from an unbalanced condition of industrial groups").—*Ibid.*, vol. vii.—*Insurance and Business.*—Marshall, *sub voce*, "Risk." For increased value owing to absence of risk see PREFERENCE SHARES.]

F. Y. E.

RISTOURNE (Fr.). A term of marine insurance meaning the return of a part of the premium in the case mentioned in the *Code de Commerce*, art. 349, that is to say, in the event of the voyage being abandoned before the departure of the ship, in which event the insurer, instead of receiving the agreed premium, is entitled to ½ per cent of the insured value, by way of indemnity. Over-insurance is also a case for a *ristourne*.

T. L.

RIXDALER (DUTCH). The Rijksdaaler is a Dutch silver coin of the same weight, 25 grammes, or 385·8 grains, as the five franc piece, but of the millesimal fineness of 945, instead of 900. It thus contains 364·58 grains of fine silver, as compared with 347·22 grains, the fine content of a five franc piece.

The weight and fineness of the rijksdaaler were fixed by a law passed on 22nd March 1839. Prior to that date the weight had been 28·078 grammes, and the fineness 868, in accordance with the provisions of the law of the 28th September 1816. Before the passing of the last-mentioned law, the legal fineness had been 869·792.

Rijksdaalers are current in the Netherlands, where they pass as 2½ gulden pieces, but they circulate mainly in the Dutch colonies.

In Ceylon, Malacca, and the Cape of Good Hope, originally Dutch colonial possessions, the rixdaler was retained as the basis of the currency systems of those countries for many years after they became British colonies, and in the case both of Ceylon and the Cape, which finally became British possessions in the years 1795 and 1806 respectively, it was not until about the year 1840 that paper rixdalers were finally removed from circulation.

[Noback, *Münz- Mass- und Gewichtsbuch.* — Chalmers, *History of Colonial Currency.*]

F. B. A.

ROBERTS, LEWES (died 1641), merchant and captain of the city of London, belonged to a Beaumaris family, and was born in the Isle of Anglesey. He was a member both of the East India Company and of the Levant Company of Merchants. The 1st dedication of his *Mappe of Commerce* is to Alderman Abbot and Alderman Garraway, the governors of these companies; the 2nd dedication is to the Harvey family, of whom William Harvey, D. of Phys., was the first, which he had served as a factor; the 3rd dedication being to the merchants of England in general. The eulogies in verse—including the graceful lines signed Iz. Wa.—are witnesses to the respect in which the author was held. His sons Gabriel and William were also merchants (for the former, see *Memoirs of the Verney Family*, iii. 371).

His *Merchant's Mappe of Commerce*, 1638, very highly extolled on its appearance, is a handbook of practical mercantile knowledge, compiled with immense industry and care, and showing an intimate acquaintance with foreign customs and writers on commercial subjects. Besides the geography of the world, it contains a mercantile description of all places of any importance, of their produce and exports, their weights and measures, currency and exchanges, and of the course of their trade not only with England but with every other country concerned.

In his *Treasure of Traffike, or a Discourse of Forraigne Trade*, 1641, which he dedicated to parliament, Roberts ventured into the region of theory. The tract was an appeal for the encouragement of commerce by the state, and suggested state control through authorised merchants of experience. In it he advocated trading companies with geographical limits rather than independent adventurers; he laid stress on the importance of good roads and other internal communications, and on the necessity for a sound coinage; he upheld staple towns; he deprecated monopolies and private patents, and argued against heavy customs. While slightly discussing the policy of protective duties in general, he entered at some length into that of prohibiting altogether the export of the precious metals, showing by some examples that money might be plentiful or scarce independently of the laws regarding its exportation.

[*Harleian Soc. Publications*, vol. 17, p. 202, vol. 37, p. 4 (date of burial 12th March 1640, presumably old style, really 1641), and vol. 8, p. 323 (Neve's *Book of Knights*).—Introductory pages to 1st ed. of *Mappe of Commerce*, 1638.—Macpherson, *Annals of Commerce*, an. 1641.—M'Culloch, *Literature of Political Economy*, p. 37.—Rogers, *History of Prices*, vol. vi. p. 7.—MS. note to title-page of *Treasure of Traffike*, Brit. Mus. copy, 1641.]

E. G. P.

ROBERTSON, GEORGE (born a few years before 1765, living in 1829), a practical farmer and writer on agriculture. He lived in Midlothian, where he had a farm at Granton near Edinburgh, until 1800, in Kincardineshire till 1811, and at Irvine in Ayrshire, where he was factor to the Earl of Eglinton, probably until his death.

He was employed to draw up descriptions of the counties he knew best for the *General Report* of the agricultural state of Scotland which was brought out under the supervision of Sir John SINCLAIR (*q.v.*). Robertson's *General View of the Agriculture of Midlothian* was printed, in its preliminary form, in 1793; his *Agriculture of Kincardineshire, or the Mearns*, not until 1813. His reports are comprehensive and detailed, describing the state of roads, farm buildings, live-stock, tillage, implements, wages, etc., with a good many careful statistical tables. He contributed also some minor papers on special subjects, for example, on woods and plantations.

Besides these official reports his chief work was, *Rural Recollections, or the progress of improvement in Agriculture and Rural Affairs*, 1829, a book full of interesting information, chiefly drawn from his own knowledge of the three counties in which he had lived. Ch. xii. of the description of Midlothian contains an account of the old runrig cultivation (see RUNDALE). He was a keen and intelligent observer and a pleasant writer, confining himself almost entirely to facts, except when he touched on the corn laws, which he strenuously upheld against the free trade theories of the day.

His other works were less important: A continuation up to date of G. Crawfurd's *General description of the shire of Renfrew*, 1818; and a *Topographical description of Ayrshire, more particularly of Cunninghame*, 1820.

[Title-page of *Report on Midlothian.*—*Rural Recollections*, pp. 7, 8, for autobiographical details.]

E. G. P.

ROBINSON, HENRY (fl. 1641-56), merchant, parliamentarian, and member of the committee for taking the accounts of the Commonwealth (*Cal. of State Papers, Dom. Ser.*, 1654, p. 287), was the author of one important book, *England's Safety in Trade's Encrease* (1641); his other works, *e.g. Briefe Considerations concerning the Advancement of Trade and Navigation* (1649); *Office of Addresses* (1650); *Certain Considerations, etc.* (1651); *Certain Proposals, etc.* (1652); *Certain Proposals, etc.* (1653), are of practical value, but do not elucidate his economic theory.

His conception of wealth was in advance of his age. According to A. Smith (*Wealth of Nations*, bk. 4, ch. i.), the title of MUN's book, *England's Treasure by Foreign Trade, or the Balance of our Foreign Trade is the Rule of our Treasure*, was the fundamental maxim of that age, and no writer looked on home trade as wealth unless it subserved foreign trade. The title of Robinson's book and of ROBERTS's *Treasure of Traffike* (1641), and such sentences as these about home trade, "accord-

ing to the increase whereof the nation is not only accommodated and *enriched* either by what they deal in or *with what they stand in need of*, but" its foreign trade is enhanced (*B. C.*, p. 3), "the wealth and welfare of this kingdom may justly be measured by the kingdom's traffic" (*E. S.*, p. 24), reveal glimpses of a larger view, which also found official recognition (Scobell's *Parliament Acts*, 1656, c. 5, preamble). These three books dealt the first, A. Smith dealt the final, blow at that mediæval hostility to trade to which Sully and Francis Bacon had imparted new life (cp. Hahl, *Zur Geschichte der volkswirtschaftlichen Ideen in England*, 1893, ch. v.). Again, Robinson praised trade because it "makes a nation populous" (*C. P.*, 1653, p. 13): Fortrey (1663) and his successors converted and therefore caricatured this proposition. Again, Mun, Misselden, and Roberts always wrote that increased trade meant increased revenue: Robinson's warning that trade will not be more unless customs are less, so that revenue will neither swell nor shrink, snapped this last link between English economics and Bodin's identification of revenue and national wealth (*E. S.*, p. 9; *B. C.*, p. 7). Again, Von Heyking (*Zur Geschichte der Handesbilanztheorie*, 1880, p. 77) suggests that Robinson invented the plan of transferring customs from exported to imported manufactures, and especially to luxuries. This plan was an obvious application of the creed of the Balance of Trade (*q.v.*), which since Stafford (1581) had had a sumptuary tinge (*ib.* p. 67); Misselden foreshadowed it (*Circle of Commerce*, 1623, pp. 134-135), and Roberts approved of it (*T. of T.*, pp. 36-39). Again every pamphleteer, notably Hitchcock (1580), Gentleman (1614), and S. Smith (1661), recommended the home fishery as a cure for beggary and substitute for workhouses: many, like Keymor (1601), pointed out in Robinson's words that "all other trades will follow of their own accord, one as it were begetting another," that it was what A. Smith called productive labour; I. R. (*The Trade's Increase*, 1615) urged the strength it would add to the navy, and lamented the waste of East Indian sailors and ships (one of which was named *The Trade's Increase*). Robinson held on all these philanthropic, economic, and political grounds that home-fishery and East Indian trade—he purposely omits the wool trade—were England's two chief sources of wealth and strength, and wished to encourage fishing by reviving the quaint laws instituting compulsory fast-days (2 & 3 Ed. VI. c. 19; 5 Eliz. c. 5, § 12, etc.; cp. *Parl. Hist.*, iii. 253), and by driving Dutch fishermen from our shores unless they settled, or half the crew and owners of their boats were English. This numerical compromise was old (1 Hy. VII. c. 8), and reappeared in 1660 (12 Car. II. c. 18, § 6). Robinson's pleas for a national bank (*E. S.*, p. 34; *Cal. of State Papers, Dom. Ser.*, 1650, p. 182, 1654, p. 364), for a labour (*O. of A.*), land, and wills registry (*C. P.*, 1652, pp. 18, 21), one supreme court of equity and common law (*C. P.*, 1653, p. 23), and county courts (*ib.*), were new then, and bore fruit long afterwards.

Other schemes reflected the views of various schools. Thus, he echoed Misselden's plea for stricter aulnage, "a mont de piété," etc. (see Aulnager; Monts de Piété) while he swallowed Malynes's nostrum for regulating exchange (*B. C.* pref.). Like Culpeper, Misselden, and Malynes, he wished to limit interest by law, and succeeded in 1651; although like Misselden and Malynes he attributed high interest to scarce money. Like Misselden and Roberts, he advocated mercantile courts, assignable debts, and the incorporation of traders trading to one place: his language on this last head is peculiarly like that of Roberts (*E. S.*, p. 45; *T. of T.*, p. 51). J. D. B.

RODBERTUS, Karl Johann (Rodbertus-Jagetzow) (1805-1875), was born at Greifswald in Swedish Pomerania, where his father was professor of law in the university. The elder Rodbertus removed in 1808 to Mecklenburg-Strelitz, where his wife possessed landed estate. The son was a student of law at Göttingen and Berlin from 1823 to 1826. After being employed for some years in legal offices in Prussia, he studied political economy, history, and philology at Heidelberg, and then travelled in France, Switzerland, and Holland. He purchased in 1835 the estate of Jagetzow in Pomerania (from which he is often called Rodbertus-Jagetzow), and resided there from 1836, taking an active part in local administration, and much occupied with the management of his property. He became in 1847 a member of the provincial diet, and sat in the second united diet. He was active in the struggles of 1848 as a warm supporter of German unity, and, at the same time, an earnest maintainer of the independence of the popular assembly as against the crown. He was appointed minister of public worship and instruction in the Auerswald administration, but very soon resigned in consequence of a disagreement with the other members of the government. After 1849 he retired from public life and devoted himself altogether to social studies.

Rodbertus's writings produced little effect in his lifetime, and he was not held in much esteem as an economic theorist until some recent writers—especially Adolf Wagner—brought his name into prominence. He is now regarded, except by the partisans of Marx, as the father of the so-called scientific, as opposed to the utopian, socialism. At first, we are told, an enthusiastic believer in traditional economic doctrines, he early worked out for himself, as explained in this article, what was in many respects a new system, which during the rest of his life he held without any noteworthy variation. His essential principles are already stated in a tract written in 1837, and well worth reading for its clearness and vigorous, though not faultless, reasoning—*Die Forderungen der arbeitenden Klassen;* and they are expounded again and again in his later productions, with little change even in their formulation. In order to understand his views, we must keep steadily before us his fundamental

doctrine (stated in his *Soziale Briefe an v. Kirchmann*, 1850) that all commodities cost labour and only labour—a proposition on which MARX afterwards laid much stress, but which, unless explained away by distinctions, is not true, and gives a perverted idea of the conditions of production. From this proposition Rodbertus infers that the best measure of the value of a commodity is the amount of labour which it has cost, or rather which is, on the average, necessary for its production.

Like most of the recent socialists, he has a philosophy of history of his own, which he explains in his *Untersuchungen auf dem Gebiete der National-Oekonomie des klassischen Alterthums*, and more briefly in his *Beleuchtung der sozialen Frage*, pt. ii. According to his scheme, society, after the introduction of pasture and agriculture, passes through three stages—the first the heathenish-antique, including successively the theocracy (Egypt, Peru), the caste-state (India), the satrapy (Persia), and the *Polis* (Greece and Rome); the second, or Christian-Germanic, comprehending the church state, the class-state (Stände-staat), the bureaucracy, and, lastly, the representative state; and the third the Christian-social, which is the organisation of the future. In the first stage the worker himself is the property of another. The second is based on property in land and capital, property in men having ceased to exist, and exchange is carried on through money and credit. In the third, land and capital will be the property of society at large; no private property but that in labour will be recognised; any one who produces anything socially useful will have a claim to the product of a labour equal to his own out of the general fund of the society.

The most serious existing social evils are, in his view, the diminution of the worker's proportional share in the products of industry—a diminution which he thinks is in process of steady increase; and the frequently recurring industrial crises by which the workers are the greatest sufferers. Both these evils he considers necessary results of the present economic system. They can be removed only by the final organisation above-mentioned, which, however, he thought it would take 500 years to introduce. But in the meantime reform was possible, especially a reform of wages. The possession of land and capital remaining as at present, the share of the wage-earner in the product of his labour must be augmented, he must be made to benefit by the increased and increasing productivity of labour, and he must be withdrawn, so far as it is possible, from the operation of the chances and changes of the market. He explains this transitional system in his essay "Der Normalarbeitstag" in the *Berliner Revue*, 1871. In order to divide the result of the national production equitably, that is, in the proportion of the contributions made to it by the several workers, the performances of the latter must be reduced to a common measure. Labour in different branches of business would be compared by means of a normal time-labour-day. Using definite numbers only to fix ideas, the normal time-labour-day being one of ten hours, six hours of mining work and twelve of work in textile manufactures might be taken as equivalent to the normal ten, the amount of effort and self-sacrifice expended in those times in the different occupations named being taken to be the same. If a man, then, worked only three hours in mining or six in textile industry, he would be regarded as having worked half a normal day. But this rule would not suffice; for the product of the work done in a time-labour-day by different men in the same occupation will be different. A fair average of the actual result which might be achieved in a normal time-labour-day must be struck in each sort of work, in other words a normal work-labour-day must be fixed for each. If a miner, though working for six hours, or a weaver, though working for twelve hours, were to accomplish only half the work which ought to be produced in a full time-labour-day, he would be credited with only half-a-day of normal work-time. But not merely does Rodbertus thus reduce to a uniform mode of measurement the various divisions of labour and the different grades of industrial capacity or assiduity; he similarly regulates the amount of reward for each contribution of work. He establishes for this purpose a labour currency instead of a metallic. The product of every sort of labour being measured by normal work-time, products of equal work-time would be equal in value, and both would receive as their remuneration drafts on the common fund for an amount of commodities which was the product of the same amount of work-time. The system here explained would be the necessary regulator, not only of the final collectivist economy, but also of a capitalism carried out under the supervision of the state by private persons owning the means of production, if the distribution were to be according to services rendered, and not, as in some socialist programmes, according to the wants of individuals. If private property in the means of production existed, it would be necessary first to set aside, out of the total product, the portions to be allotted to the owners of land and the capitalists who took part in the production. The whole system would require periodical or occasional adjustment according to changes in the value-in-use of commodities and services—"otherwise supply and demand could not be held in equilibrium, and the constant free circulation of the forces of labour among the various departments of it would not be secured."

In politics, Rodbertus was national and

monarchical, because he thought that the solution of social problems could be best elaborated in a Germany united under a royal house. He kept aloof from the democratic agitations of his time. He would tolerate, he said, no movement for exciting the working classes against the executive power. In economics, as we have seen, he accepted the present order provisionally as the natural outcome of the past, though he looked for a better in the future, and would not plunge suddenly into a new industrial system having no links of connection with the present. When urged by LASSALLE to join the *Arbeiterverein*, he decidedly refused to do so, though he continued in uninterrupted correspondence with Lassalle till the death of the latter. He set aside Lassalle's no less than SCHULTZE-DELITZSCH'S associations as supplying no adequate solution of the labour-problem, of which indeed no solution could be improvised, though a partial improvement of the workman's condition was already possible. Though he was in favour of universal suffrage, he did not approve of the policy of setting it before working men as their first object; if a political aim such as this were added to their economic demands, he thought the effect would be to lead their aspirations and efforts into wrong channels.

It has been disputed how far Rodbertus's views were original. The doctrine of the iron law of wages and of the steady decline of the workman's proportional share of the nation's industrial income, were reproductions, or perhaps exaggerations, of theories of RICARDO. And the notion of surplus value, which we find in him, had certainly been propounded previously by William THOMPSON. The idea of labour-money had been suggested before 1830; it was practically tried in the third decade of the century by Robert OWEN (see LABOUR EXCHANGE), and, after him, by PROUDHON. The question of MARX'S indebtedness to Rodbertus has been keenly debated. Engels repudiates any such obligations on the part of Marx, which, nevertheless, seem to be real and even considerable. It is difficult to prove that a later author *borrowed* from an earlier one, because he may have independently arrived at the same conclusions; but there is no doubt that Rodbertus had previously put forward some of the views most prominent in Marx's system.

Besides the writings of Rodbertus named above, may be mentioned as of special importance his *Zur Erkenntniss unserer staatswirthschaftlichen Zustände* (1842), and his *Offener Brief an das Comité des deutschen Arbeitervereins zu Leipzig* (1863). He handled various questions which were merely occasional or of purely German interest. Thus, he gave much attention to the reform of agrarian legislation, and especially to improved arrangements for enabling agricultural proprietors to borrow on the security of their land. In the sphere of general theory, he combated the law of the diminishing productiveness of capital applied to agriculture, and rejected the Ricardian theory of rent, substituting one of his own, which, however, seems not to have met with acceptance from any other economist.

Such of his writings as remained unpublished at his death, and could then be recovered, have been edited by Wagner and Kozak; and there have also appeared several series of his letters to Wagner (1878), to Peters (1878), to J. Zeller (1879), and to Rudolf Meyer (1882). Lassalle's letters to him have also been edited by Wagner; but his letters to Lassalle have not been found.

[Diehl in *Handw. der Sozialwissenschaften.*—Würth in *Allg. Deutsche Biogr.*—Ad. Wagner, *Einiges von und über Rodbertus-Jagetzow* (in the Tübingen *Zeitschrift für die gesammte Staatswissenschaft* (1878).—Georg Adler, *Rodbertus, der Begründer des wissenschaftlichen Sozialismus.*—W. H. Dawson, *German Socialism*, ch. iii. "Karl Rodbertus and the Wages Principle" (1888).—J. Rae, *Socialism.*] J. K. I.

RODRIGUEZ DE COLMENAR. See COLMENAR, RODRIGUEZ DE.

RŒDERER, PIERRE LOUIS, Comte (1754-1835) politician and author, was born at Metz and died at Bois-Roussel (Orne).

He was a deputy to the *États-généraux* in 1789, and frequently reporter to the committee of finance.

On the 10th Fructidor, year iv. (28 August 1796), Rœderer established a review, published each *decade*, the *Journal d'économie publique, de morale et de politique*, and thus collected round him many able contributors, as Laromiguieres, Madame de Staël, Lacretelle the elder, J. F. Bourgoing, Saint Aubin, André Morellet, Benjamin Constant, Du Pont de Nemours, Arnoult, etc. At this time another review, the *Décade* of J. B. SAY, established 29th April 1794, was at the height of its prosperity. Rœderer represented from the economic point of view the meeting-point between the PHYSIOCRATS and the disciples of Adam SMITH. J. B. Say belonged to the latter school. Either there was not place for two journals dealing with the same subjects or the public preferred the more slashing *Décade*, and Rœderer's journal existed hardly a year (5 vols. in 8vo). When J. B. Say on entering the *Tribunat* ceased to edit the *Décade*, November 1799, Roederer, a few days later, 30 Frimaire, year viii. (21st December 1799), recommenced his review, calling it this time *Mémoires* instead of *Journal*. This new periodical, however, existed even a shorter time than the former (2 vols. 8vo), and soon this scientific journal disappeared for ever.

Rœderer also edited a daily paper, the *Journal de Paris*, established 1776. He wrote many pamphlets on subjects of the day; among these it will suffice to give the name of one which appeared in 1840, entitled *Mémoires sur quelques points d'Économie politique lus au Lycée en 1800 et 1801* (8vo). Rœderer taught in 1800 political economy at the *Lycée*, now the *Athénée* of Paris. He was appointed in 1796 professor of political economy at the normal school (where Vandermonde had taught), but he never performed the duties. A. C. f.

ROESLER, KARL FRIEDRICH HERMANN (1831-1895), born in Munich, was appointed professor of the political sciences in the university of Rostock; resigned that chair in 1878, and in the following year went to Tokio as adviser on public law and commercial policy to the Japanese foreign office. In this position he is said to have exercised great influence. He died in Austria on his return from Japan.

His principal writings, besides articles in different periodicals on value, prices, income, and the international division of labour, are: *Zur Kritik der Lehre von Arbeitslohn*, 1861; *Grundsätze der Volkswirthschaftslehre*, 1864; *Ueber die Grundlehren der von Adam Smith begründeten Volkswirthschaftstheorie*, 1867 (2nd ed. 1871); and *Vorlesungen über Volkswirthschaft*, 1878. He belonged to the historical school, and to that branch of it in particular which insists strongly on the close relations which exist between economics and jurisprudence. Roscher praised him as having pointed with special force to "the treasure of experiences and ideas on economic subjects collected by the jurists during ages, and handed down by the characteristically persistent tradition of their profession." Cossa accuses him of having fallen into gross errors in the interpretation and criticism of the fundamental doctrines of Adam SMITH. Cossa does not specify these errors, but appears to refer to Rösler's opposition to the individualist principles of the liberal economists. The book *Ueber die Grundlehren*, etc., in fact, contains a searching and acute polemic not so much against Smith himself as against what the Germans call *Smithianismus*, the system of the so-called classical school. Rösler's discussion of elementary ideas and his strictures on the ordinary terminology are often sagacious and just. In his *Vorlesungen* he maintained, as necessary and desirable, the predominance of the capitalist in the regulation of industrial life, and objected to coalitions amongst the working classes, as furthering the dangerous agitation of the social-democratic party. These opinions led to a sharp attack on him by Max Hirsch in an article entitled "How one qualifies oneself for Japan."

[Lippert in *Handw. der Staatsw.*—Cossa, *Introd. allo Studio dell' E.P.*, p. 438, English ed., 1893, pp. 286, 403, 420.] J. K. I.

ROGERS, JAMES EDWIN THOROLD (1823-1890). Thorold Rogers was educated at King's College, London, and at Magdalen Hall, Oxford, where he took his bachelor's degree, with a first class in *Literæ Humaniores*, in 1846. He entered holy orders in the Church of England, and took some part in the High Church movement, contributing an article to Orby Shipley's *Church and the World*. But his attention was drawn to economics by his friendship with COBDEN; and in 1862 he was elected to the Drummond professorship of political economy at Oxford.

The fruits of his professorship were the first two volumes of his monumental *History of Agriculture and Prices in England*, covering the period 1249-1400 (1866), his *Manual of Political Economy for Schools* (1868), and an edition of Adam Smith's *Wealth of Nations* (1869). Owing to academic antagonisms, however, the convocation of the university, which at that time had the right of electing to the Drummond Professorship, refused in 1868 to elect Rogers for a second term. He then turned to current politics, surrendered his clerical status, and in 1874 stood as a candidate for parliament at Scarborough. He did not succeed in securing his election till 1880, when he was chosen in the liberal interest at Southwark. He was re-elected for Bermondsey, a division of Southwark, in 1885, but he lost his seat in 1886. Meanwhile he wrote *Cobden and Public Opinion* (1873); edited the *Speeches of John Bright* (1868), the *Protests of the Lords* (1875), and Gascoigne's *Liber Veritatum* (1881); issued (1882) the third and fourth volumes of his *History of Agriculture*, covering the period 1401-1583; wrote a popular account of his conclusions concerning economic history, under the title *Six Centuries of Work and Wages* (1885); as well as a number of popular articles and booklets, of which perhaps the best is *The British Citizen* (1885). After the loss of his seat in parliament, he turned with renewed zeal to his historical researches, and was able to issue in 1887 the fifth and sixth volumes of his *History* (for the period 1584-1702), and the *First nine years of the Bank of England*. For many years he had held the almost nominal Tooke professorship of economic science at King's College, London, and he had lectured at Worcester College, Oxford; in 1888 he was re-elected to the Oxford professorship. Two courses of his professorial lectures have been printed under the titles, *The Economic Interpretation of History* (1888), and, posthumously, *The Industrial and Commercial History of England* (1892). The 7th and 8th volumes of his *History*, coming down to 1793, are being prepared chiefly from material he had collected, by one of his sons, Mr. A. G. L. Rogers.

Thorold Rogers's reputation rests on his *History of Agriculture and Prices*, which will remain an extremely valuable repertory of material for economic history, however much subsequent writers may dissent from the conclusions he believed he could draw from them, and however much it may need to be supplemented by evidence of other kinds. His attitude with regard to general economic theory and economic policy remained throughout that of the MANCHESTER SCHOOL; in his earlier writings he was also greatly affected by the writings of BASTIAT. In his later years, however, he saw his way to defend trades unions; he had long ridiculed the Ricardian doctrine of rent; and in his later works he was inclined to speak of "political economists" in terms which magnified his own divergence from them.

[See an article by W. J. Ashley in the *Political Science Quarterly* (New York), iv. (1889), 381; and the notice by E. Castelot in *Nouveau Dictionnaire d'Économie politique*, Supplément.] W. J. A.

ROHR, JULIUS BERNHARD VON (1683-1742), a protestant canon at Merseburg, displayed

from his very youth an active interest in economic questions; early in life in his thesis for his doctor's degree, he took up the subject of the advancement of economic study (*De excolendo studio oeconomico tam principum quam privatorum*, Leipzig, 1712), and argued for the establishment of professorships of economics in the universities.

In his *Compendieuse Haushaltungs-Bibliothek*, Leipzig, 1716, Rohr also urged the foundation of state-subsidised economic societies, to which he desired to commit the supervision of economic measures of general interest; the main object of his writings, however, is the minute investigation of the means of enabling each individual to prosper in his calling. To combat the contempt with which the nobility looked down on trade and traders, he maintains that as a matter of fact noblemen trade with their cattle and corn, the learned with their writings, the soldiers with their bodily and muscular strength: trade is thus almost universal among mankind.

[Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 378.] E. Ca.

ROLT, Richard (1725-70), had served in the Jacobite army in the '45, and thereafter lived in London by his pen. Besides poems, operas, and especially political pamphlets, he produced a commercial dictionary with an introduction by Samuel Johnson, 1756. The contempt expressed for this book by M'Culloch in his *Commercial Dictionary*, 1832, and especially in his *Literature of Pol. Econ.*, 1845, goes too far, though the main motive of the three parties most concerned in it — Rolt, Osborne, and Johnson—was probably to make money.

The volume is a folio of between 400 and 500 unnumbered pages, preceded by a full-length frontispiece representing British commerce and maritime power, with the motto from *Æn.* v. 195, "Superent quibus hoc, Neptune, dedisti." The title runs: "A New Dictionary of Trade and Commerce, compiled from the information of the most eminent merchants and from the works of the best writers on commercial subjects in all languages, containing among other things:—

"I. An account of the natural productions which are conducive to trade throughout the world.

"II. The different manufactures established in each particular country.

"III. Explanation of all the terms used in commerce.

"IV. Explanations of the principal terms of geography, astronomy, and navigation, so far as they are connected with trade.

"V. An exact account of the coins, weights, and measures in use throughout the world, reduced to the English standard.

"VI. A description of the established banks, trading companies, and staple commodities of different countries.

"VII. The state of the British trade, national debt, funds, customs, excise, and other taxes.

"VIII. The laws relative to trade and commerce.

"For the use of the merchants and tradesmen of Great Britain as well as of private gentlemen. By Mr. Rolt, with the assistance of several eminent merchants." (London, Osborne, etc., 1756.)

The first or editor's preface is dated 24th December 1755, and addressed to Lord High Admiral Anson; it refers to French competition and to Savary's *Dictionary* and its exaggerations of French greatness.

Boswell (*sub dato* 1761) gives Johnson's own admission of his authorship of the second preface, but says it first appeared in the 2nd edition, 1761. It appears, however, in the 1st edition, 1756. The style is characteristic. "The writers of this volume are not so far exempt from epidemical prejudices but that they please themselves with imagining that they have reserved their labours to a propitious conjuncture, and that this is the proper time for the publication of a Dictionary of Commerce." The dictionary proposes to exhibit "the materials, the places, and the means of traffick," the means including education especially in book-keeping and money matters. "All this he [the merchant] must learn merely as a private trader, attentive to his own advantage; but, as every man ought to consider himself as part of the community to which he belongs, and, while he prosecutes his own interest, to promote likewise that of his country, it is necessary for the trader to look abroad upon mankind and study many matters which are perhaps more properly political than mercantile," such as the balance of trade, the good and evil of monopolies and companies, the state of our colonies, the duties and taxes. "To teach all this is the design of the commercial dictionary, which, though immediately and primarily written for the merchants, will be of use to every man of business or curiosity. There is no man who is not in some degree a merchant, who has not something to buy and something to sell, and who does not therefore want such instruction as may teach him the true value of possessions or commodities." "We therefore hope that we shall not repent the labour of compiling this work, nor flatter ourselves unreasonably in predicting a favourable reception to a book which no condition of life can render useless, which may contribute to the advantage of all that make or receive laws, of all that buy or sell, of all that wish to keep or improve their possessions, of all that desire to be rich, and all that desire to be wise."

The vindication of the alphabetical form of the book is worthy of the lexicographer: "Sciences [like arithmetic or geometry] in themselves systematical and coherent, are not very properly broken into such fortuitous distributions. But commerce comprised in its whole extent seems to refuse any other method of arrangement, as it comprises innumerable particulars unconnected with each other, among which there is no reason why any should be first or last, better than is furnished by the letters that compose their names." J. B.

ROMAGNOSI, Gian Domenico (1761-1835). Born at Salso Maggiore, Parma; one of the most brilliant philosophers and jurists of Italy. He graduated at Parma, his first studies having been in physics and mathematics. He published in 1791 his *Genesi del diritto penale*, an important work which brought him into notice both in Italy and abroad. From 1791 to 1802 Romagnosi resided in Trent, first as a magistrate and then as a practising jurist. In 1802 he was appointed to the chair of public law at the university of Parma, in 1806 he was called by the ministers of the first kingdom of Italy to Milan, where he compiled the code of penal law. In 1807 he was made professor of civil law at the university of Pavia, and, shortly afterwards, was summoned by the government to Milan to occupy a professorship established for the improvement of higher legislation. During the latter years of Romagnosi's life he was deprived of his official appointments, reduced to live by writing for different reviews and to accept help from his devoted friends; he died in Milan.

Romagnosi's energy embraced many branches of knowledge; his numerous works, which went through several editions, bear witness to his ability. The chief are: *Genesi del diritto penale* (1791).—*Introduzione allo studio del diritto pubblico universale* (1805).—*Assunto primo della*

scienza del diritto naturale (1820).—*Dell' indole e dei fattori dell' incivilimento* (1832). The philosophy of Romagnosi is essentially eclectic and moderate in tone; without presenting new ideas, it gives a powerful synthesis of the political and social theories of the 18th century. Yet it is not lacking in true originality as shown by the conception of the philosophy of social life as the science of sciences and crown of knowledge; this places Romagnosi among the precursors of sociology. Germs of the present positive school of law are distinctly found in his work on the factors of civilisation as well as in his *Genesi*. Romagnosi's fundamental principle, the strictly positive method of observation he employs, the data he uses, the results he arrives at, are closely allied to the modern direction of juridical philosophy, and present a close analogy with the positivism of Herbert Spencer. Economic ideas abound in his principal works; particularly in his *Introduzione al diritto pubblico*, in his *Principii di diritto amministrativo*, in the *Assunto primo di diritto naturale*, in the *Fattori dell' incivilimento*, and more especially in the *Istituzioni di civile filosofia*, published 1839 after his death. Romagnosi wrote numerous articles on economic and statistical subjects, which appeared chiefly in the *Annali universali di statistica*, which develop more fully his economic doctrines and illustrate the relation between economics and law. These articles, written during the last and saddest years of his life, are not considered as among his best productions; they were collected in two volumes. He maintains that the material superiority of a nation can only be secured by an equal distribution of wealth; he vindicates the practical character of economic science, combating useless abstractions, and demanding that man be considered, not individually, but as a member of the social circle he lives in. Romagnosi formed an essentially historic conception of economic phenomena, studied objectively. Dogmatism in political economy, he says, is opposed to common sense—permissible, perhaps, in olden but not in modern times. He applies this idea to international trade, in which, while accepting the truth of the principle of absolute free exchange, he maintains the necessity of a reference to history, asserting that there exist social conditions under which universal competition is impossible. He examines private property in land from that standpoint, which regards it as an historical institution, changing as the social conditions change, and justified by the necessity of improving and developing the cultivation of the land to provide for an increasing population. Romagnosi's definition of political economy as the *Scienza dell' ordine sociale della richezza* is reproduced by Cossa and adopted by the majority of the present Italian economists. The most important points in Romagnosi's economic doctrine are those bearing on the relation between economics and law, free competition and state interference. The legal sociologist can be traced in all Romagnosi's economic writings; the liberal economist in those on judicial matters, and the experimental philosopher in both one and the other. He sees clearly the connection between economic and juridical principles, and aims at the conception of a public economic law as a guide to social requirements. He endeavours above all things to apply his doctrines practically. Romagnosi's enlightened eclecticism inspires his ideas on competition and state interference. *La Società* and free competition are, according to him, essential economic conditions. The conception of egoism must be modified by that of sociology. He formed a judicial conception of individual economic liberty, demanding restrictions for the protection of individuals and of society; different restrictions, according to the progress of social development. Free competition—the more efficacious, the more equal the intelligence and the freedom of each individual—requires, according to Romagnosi, three essential conditions, social powers to be made equal, this equality protected by the law, and mutual public assistance enforced to the advantage of the weak. Finally, as for state interference, though Romagnosi combats such interference in economic and commercial matters, he is very far from advocating an absolute absence of control. He urges the necessity of the formation and maintenance of a social power, limiting individual action, thus protecting the liberty of all, and to this power he assigns the task of promoting economic, moral, and political improvement. In economic matters state interference should be regulated by social requirements, differently developed according to the conditions of place and time, stepping in where individual action is incapable of obtaining good and useful results. The best edition of the complete works of Romagnosi, of which we have quoted the principal ones, is that of Milan, 1841. His papers on economy are collected in two volumes: *Collezione degli articoli di economia politica e di statistica di G. D. R.*

[Concerning the philosophical and juridical ideas of Romagnosi, see, among many others, G. Ferrari, *La mente di G. D. Romagnosi*, Milan, 1835.—A. Pilo, "La filosofia civile di G. D. Romagnosi," Milan, 1882, in the *Filangieri* (a well-known review published in Milan).—Concerning his economic ideas, see G. Valenti, *Le idee economiche di G. D. Romagnosi*, Rome, 1891.] U. R.

ROMAN LAW has now a history extending over twenty-three centuries. It has influenced the existing law of all civilised countries, and in a modified form is actually the law in a large part of Europe. The influence it has exerted over the rights of property renders it especially deserving notice in a work dealing with economics. The history of Roman law begins with the "twelve tables," 450 B.C. Their enactments, though not actually preserved in a complete form, are known through numerous quotations and references in the works of Roman historians and lawyers. This law dealt with the two principal transactions occurring in the life of ancient Rome—the "mancipatio," the sale in solemn form in the presence of five witnesses, and the person holding the scales in which the copper coin used for payment of the purchase price was weighed; and the "nexum," the loan in solemn form. As the development

of commerce in the following centuries necessitated conveyances and contracts, not being sales or loans in the strict sense, the pontiffs, whose duty it was to act as preservers and interpreters of the law, devised new means for giving legal validity to such conveyances and contracts. This was done with the help of what was called the "interpretatio" of the law of the twelve tables. This meant something more than interpretation in the strict sense, being rather an extension of the provisions of the law by way of analogy. Thus a rule of procedure contained in the twelve tables—according to which the admission of a claim in an action was equivalent to a judgment in favour of the plaintiff—was used as a convenient method of transferring ownership in cases where there was no sale, or where the forms of the "mancipatio" were not applicable. This procedure was called "in jure cessio," and had a very striking resemblance to the "common recovery" of English law, which was used as a means for barring entails (see ENTAIL, LAW OF). The further progress of "interpretatio" made it possible to use the forms of "mancipatio" for a variety of purposes which had previously not been thought of. The custom arose to comply with the form of "mancipatio" by paying down a nominal sum (mancipatio sestertii nummo uno), by which means, in the case of a real sale, the property was made to pass before the actual purchase price was paid; and in other cases the property could be transferred by the mere fiction of a sale. The transaction called "fiducia," introduced in a similar way, has special interest to English students of legal history, as it was the prototype of "uses" and "trusts." "Fiducia" was a conveyance of the property by "mancipatio," in connection with which the transferee undertook in certain events to reconvey the property to the transferor. This method was principally used when the property was transferred by way of security for a loan, and was to be retransferred on repayment of the loan, but was also applied for other purposes (depositum; commodatum; mandatum).

Another agency was at work by the side of the "interpretatio," which helped to deliver Roman law from the bondage of formalism. This was the expansion of the Roman state and the intercourse of Romans with persons who, though resident within Roman territory, were excluded from the privileges of Roman citizenship. These persons were not under the rules of the civic law—"jus civile," and their transactions were governed by a sort of natural law which was called "jus gentium," because it embodied certain elements common to all the tribes who traded with Rome. This law was also applicable to certain kinds of property in which the full ownership of Roman civil law ("dominium ex jure Quiritium") was not recognised, and which, in contradistinction to things which were transferred by "mancipatio" ("res mancipi"), were called "res nec mancipi." The former category included such things only as belong to an archaic agricultural community (land in Italy, slaves, animals used in connection with agriculture), whilst articles of trade and money belonged to the things which were transferable by mere delivery without the forms of mancipatio. Judicial arrangements, introduced 367 B.C., when a new office—that of the "prætor"—was created for the purpose of superintending the administration of justice, helped considerably to increase the influence of the "jus gentium" on Roman law. This was more particularly the case since the appointment, 242 B.C., of a special "prætor peregrinus" for disputes between aliens and Roman citizens, or between aliens *inter se*.

The prætor had a certain liberty in administrating the law, which enabled him to relieve the persons concerned from the harshness of the letter, as in England the equitable jurisdiction of the chancellor has been employed to prevent an abuse of legal rights. The methodical spirit of the Roman nation prevented a capricious exercise of these discretionary powers, and led to the introduction of a custom according to which each prætor laid down certain rules which he intended to observe permanently during his year of office, and which he collected in an edict called "edictum perpetuum." As successive prætors acquired the habit of retaining such parts of their predecessors' edict as did not require alteration, and of adding such new matter as seemed convenient to them, the pretorian edict soon became a regular body of law, called "jus honorarium." During the last century of the republic the edicts attained a stereotyped form, and were reissued from year to year without alteration. Under Hadrian the two edicts were put together and revised by Salvius Julianus, and made binding by statute (*Senatus consultum*). Thus Roman law at the beginning of the 2nd century A.D. consisted of the "twelve tables," the customary law added to them by "interpretatio," the "jus gentium" as embodied in the "Edictum Hadrianum," and those additions to law which had been made by imperial legislation—such legislation having already at that stage assumed a certain importance.

During the following centuries the influence of the jurists was the dominant factor in the development of law. This influence was fostered by the "jus respondendi," a privilege which, since the reign of Augustus, was granted by the emperor to distinguished lawyers, and gave their opinions the same authority which in England is attributed to the decisions of the superior courts. Massurius Sabinus, a follower of C. Atejus Capito—a well-known jurist during the reign of Augustus—appears to have been the first to establish a legal school during the reign of Tiberius, and an opposing school was formed by Proculus, a disciple of Labeo (another distinguished Augustan jurist); for some time afterwards the jurists were divided into two camps, the "Sabinians" and the "Proculians" (Celsus, Salvius Julianus, and Gajus being the most

prominent authorities of that period), but the difference between the two schools disappeared in the subsequent period, of which Scaevola and Papinian, Ulpian and Paulus are the best representatives. The "jus respondendi" ceased to be conferred after the end of the 3rd century, and from that time the power of the emperors was the only influence affecting the development of law. The work of the jurists had brought about the collection of the elements previously mentioned into a systematic whole, but the emperors now gradually exerted themselves to eliminate the differences between the various elements. This was facilitated by the gradual disappearance of the distinctions between "cives" and "peregrini" and the other changes which transformed the dominion of a city into the rule of a cosmopolitan empire.

But the emperors, besides this work of unification, set themselves another task, viz. that of codification. For this purpose the old law which had been digested by various jurists had to be declared in an authoritative manner, and the new statute law had to be collected and arranged. The first task was facilitated by a statute of Theodosius and Valentinian, which selected five authors whose works were to be the only ones possessed of authority. These were:—Papinianus, Paulus, Gajus, Ulpianus, and Modestinus. They were selected because, at the time, their writings were more widely circulated than those of other writers like Scaevola, Sabinus, Julianus and Marcellus, which were not to have any authority except in so far as they were quoted by the above-mentioned authors. In cases of difference of *opinion the majority* was to decide, but the opinion of Papinian was to prevail over the opinion of any other single writer.

The earlier statutes of the emperors, which, like the law expounded by the jurists, were considered part of the *old* law, were during the 4th century brought together in two collections respectively called the Codex Gregorianus and the Codex Hermogenianus, and the later statutes which constituted the new law were, in 438 A.D., collected in the Codex Theodosianus. The statutes subsequently issued are known as the Post-Theodosian Novels.

These materials, the selected writings of the jurists, the collections of older statutes, and the Theodosian collection and Post-Theodosian Novels were in existence when Justinian undertook his great work which now forms the Corpus Juris Civilis, and in its present arrangement consists of four parts: (1) the Institutes, being an elementary summary of the law divided into four books; (2) the Digest or Pandects, being a collection of passages from authoritative authors arranged according to subjects in fifty books; of these, the forty-seventh and forty-eighth books deal with criminal law and are commonly called "libri terribiles"; (3) the Codex, which embodies the whole of the imperial statutes, and is subdivided into twelve books; (4) the Novels, being Justinian's subsequent statutes, some of which contain very material alteration of the law.

The law, as embodied in Justinian's collection, is now commonly called "Roman Law." This body of law formed the subject of study when, on the foundation of the university of Bologna (about 1100 A.D.), students from all parts of Europe came to that seat of learning. It was then that the belief formed itself that "Roman law" was a kind of universal law, and that the native law prevailing in different places only represented local deviations from universal rules. This belief was, of course, strongest in the territories forming part of the holy Roman empire, regarded by many as a continuation of imperial Rome, and this fact accounts for what is called the "reception" of Roman law, which, subject to local customs, became the common law of the countries now forming part of the German empire, Holland, Austria, and Switzerland. The increased influence which the "*doctors of law*," who were persons learned in Roman law, began to obtain during the 15th century in comparison to the lay judges who administered the local law, helped to bring about this result, confirmed by express enactment of the establishment of the Imperial Chamber Court in 1465 (see CAMERALISTIC SCIENCE).

The system of Roman law thus introduced into Germany and other countries did not, however, in its permanent form, remain identical with the law of Justinian; a body of law somewhat modified by the principles of canon law, local custom, and the necessities of modern commercial intercourse, was gradually formed by the decision of the judges; and this modernised Roman law has survived in a great part of Germany, but will in 1900 be superseded by the new German civil code. The law which is now operative in other parts of Germany, in Switzerland, Austria, France, Holland, and Italy is also influenced to a great extent by the doctrines of Roman law, and Dutch-Roman law prevails in several British colonies and dependencies, *e.g.* the South African Colonies and Ceylon.

In England the influence of the Italian jurists was also considerable, but the fact that the English kings were national kings, and did not claim universal dominion, coupled with the circumstances that the English courts were much more centralised and better able to develop a national system of law than the courts on the continent, prevented the wholesale introduction of Roman law into this country. It is true that Roman law was, at a very early period, taught in Oxford by Vacarius and others, and that the writings of Glanville and Bracton represent the law of their time as very similar to Roman law; but their ideas did not, notwithstanding their great reputation, obtain a permanent footing. No doubt the Chancellors whose jurisdiction began to assume importance under Richard II. were influenced by certain ideas derived from Roman law—more particularly those which enabled them to draw a distinction between formal and beneficial ownership, but the equity jurisprudence which they established soon assumed a character of its own, not retaining many traces of a foreign origin. The law administered by the admiralty court and the bishops' courts, a part of which is still preserved in the practice of the probate division of the high court, was more directly influenced by the principles of Roman civil and canon law.

Owing to the long history of Roman law, it has received a vastly greater amount of attention from juridical science than any other system of law, and its study is therefore best fitted as a means for explaining the general features of law to beginners. At the same time the early stages of the development of the system, which antiquarian research, aided by the writings of the Roman jurists and historians, has reconstructed in a very complete manner, are eminently interesting to students of the progress of social and economic intercourse among men.

[The literature of Roman law is so vast that it is impossible to enumerate even the most important works. By way of general introduction, Sohm's *Institutes of Roman Law* translated by Ledlie, with an introductory essay by Erwin Grueber, will be found most useful as well as Salkowski, *Institutionen des rom. Rechts* (translated into English by Whitfield). See also Poste, *The Elements of Roman Law of Gajus.*—Moyle, *Imperatoris Justiniani Institutiones Libri Quatuor*, 2 vols.—Holland and Shadwell, *Select Titles from the Digest of Justinian*. Of the books containing a full account of the system of Roman law as now practised in certain parts of Germany, Dernburg's *Pandekten*, 3 vols., is distinguished by lucidity of exposition and arrangement.

An interesting account of the early history of Roman law is to be found in Mommsen's *Roman History*. Sir Henry Maine's *Ancient Law*, and Ihering, *Der Geist des römischen Rechts*, contain most valuable and ingenious observations on the spirit of Roman law, which, however, assume some previous knowledge in the reader. As to the influence of Roman law in England, see Pollock and Maitland, *History of English Law*, i. pp. 88-114; *ib.* p. 196 *et passim*; Goudy, *An Inaugural Lecture on the Fate of the Roman Law North and South of the Tweed.*]

E. S.

ROSCHER, WILLIAM (1817-1894), was born in Hanover, where his father held a high judicial post. After he had studied history and political science at Gottingen and Berlin, he established himself in 1840 as lecturer in both these studies at the university of Gottingen, where in 1848 he was appointed professor-extraordinary of political economy, and the next year was promoted professor. In 1848 he was called to the university of Leipzig, where he died in 1894, after forty-six years' successful discharge of his professorial duties.

The importance of Roscher lies rather in the field of method than in that of dogma. He is sometimes considered as the founder in Germany of the historical method in political economy. This, however, cannot be admitted without reservation. Before him, F. LIST had already produced, on an entirely historical basis, his *Nationales System der politischen Oekonomie*, 1841, and Schmitthenner, Adam MÜLLER, and even in the 18th century Justus MÖSER, had pursued similar studies. Auguste COMTE in France in his *Philosophie Positive*, which appeared between 1830 and 1842, had also claimed the historical method for the whole province of social science, even though perhaps he did not pursue it in every direction.

The numerous writings of Roscher may be divided into four groups:—

1. The historical philological writings, the earliest group, which include his dissertation for obtaining his doctor's degree, *De historicæ doctrinæ apud sophistas maiores vestigiis*, 1838, and *Lehre, Werk, und Zeitalter des Thukydides*, 1842: the projected continuation of this, which should have extended to Herodotus, Xenophon, and the Roman historians, was never written.

2. In this group we may include all the works in which he put forward his "System of Political Economy." To these there belongs first the preparatory synopsis: *Grundriss zu Vorlesungen über die Staatswirthschaft nach geschichtlicher Methode*, 1843; then, in five volumes, the expansion of this short study arranged as follows:—vol. i., *Die Grundlagen der Nationalökonomie*, 1854; vol. ii., *Die Nationalökonomie des Ackerbaues und der verwandten Urproduktionszweige*, 1859; vol. iii., *Die Nationalökonomik des Handels und Gewerbfleisses*, 1881; vol. iv., *System der Finanzwissenschaft*, 1886; vol. v., *System der Armenpflege und Armenpolitik*, 1894. The first volume by way of introduction deals with abstract or theoretical political economy. In the following volumes applied or practical economics are made the principal subject of inquiry. In the same group may be included a number of separate monographs and treatises, among which may be mentioned *Ueber den Luxus*, 1843; *Betrachtungen über Socialismus und Kommunismus*, 1845; *Ueber Kornstheuerungen*, 1847; *Kolonien, Kolonialpolitik und Auswanderung*, 1856.

3. This group is composed of his numerous writings on the history of economical literature, as the essays: *Zur Geschichte der englischen Volkswirthschaftslehre im 16. und 17. Jahrhundert*, 1851-52; *Ueber die Ein- und Durchführung des Adam Smithschen Systems in Deutschland*, 1867; *Ein grosser Nationalökonom des 14. Jahrhunderts* (*Nicolaus Oresmius*), 1862, and his monumental work *Geschichte der Nationalökonomik in Deutschland*, 1874.

4. The last group contains some treatises belonging to the region of politics which appeared shortly before his death, collected and enlarged under the title of *Politik, geschichtliche Naturlehre der Monarchie, Aristokratie und Demokratie*, 1892. After the death of Roscher, his son Karl published further a collection of aphorisms written at various times, principally of a religious nature, The book is entitled *Geistliche Gedanken eines Nationalökonomen*, 1895.

Roscher calls his method the *historic* or *historico-physiological* in opposition to the *philosophic* or *idealistic* method. He contends that the object of political economy is not to point out the best possible state of things, as the system of the physiocrats would have it, and as socialism will have it at the present day, but to describe in its continuous process of development the state of things actually evolved. The best condition belongs more or less to the realm of imagination; the historical, on the contrary, is accessible to close scientific observation. Of the two principal scientific questions "what is?", and "what should be?" Roscher wishes to answer the former only. The latter can the less lead to exact results, as the "what should be" depends upon varying circumstances, and opinions about it have constantly fluctuated. If, accordingly, Roscher denies the possibility of a science on an idealistic basis, he, on the other hand, believes that by the study of what has actually occurred he can find a "firm island of scientific truth which may be accepted in the same manner as the adherents of different systems of medicine all admit the teaching of mathematical physics." Political economy in Roscher's sense would thus only "describe" and draw from historical parallels "threads of indication"—*Leitfaden*—leading up to the presumable economic movement of the future; he will neither criticise nor construct.

In the collective system of science, political economy has its place next to *politics*, of which, in a certain sense, it constitutes only a specially developed branch. If politics be denoted the science of national life, Roscher defines political economy as the science of the economic national life. Legal science is a third sister science inasmuch as legal, political, and economical science form a special group among subjects of scientific inquiry. They support each other mutually, and it is impossible to understand one of the three sides of national life with which they deal without at the same time keeping the others in view. It is a special peculiarity of the historico-physiological method to assist in this collective consideration.

Political economy, taken by itself, is divided, as has been already remarked, into a theoretic and a practical section. The study of the abstract or theoretical branch prepares the ground for the study of practical economics in the same way as the knowledge of anatomy prepares the ground for the study of physiology. It is concerned with "economic laws of development" which Roscher characterises as "laws of nature," not thinking, however, of mechanical but of organic nature. This is Roscher's meaning when he speaks of an "historic science of nature" dealing with politics and economics respectively.

Like the vegetable and animal world, the life of nations runs through four stages of development—childhood, youth (the time of bloom), manhood (the time of ripening), old age (the time of decay). Thus development moves in an ascending and a

descending direction. This movement is best studied by inquiring into the history of nations belonging to antiquity, because their completed career is before us.

Three principal economic factors govern the evolution of every nation; of these, one takes precedence in each successive period of life, namely, *Nature*, *Labour*, *Capital*. "In the earliest period," says Roscher, "nature still predominates throughout. In the second period, such as modern nations have lived through since the latter part of the middle ages, labour becomes ever more important. In the third, capital is predominant. . . . Usually the happiest time of nations coincides with the commencement of the third period." But this happy period does not last for ever. "At last political economy declines contemporaneously with the nation." Then gradually the peculiarities of the earlier stages of civilisation come to the front again. "Childish old age resembles the helplessness of childhood."

This historical model Roscher applies to economic conditions generally as well as to each individual department. In the childhood of every nation everything keeps within the bounds of natural economy (Natural-wirthschaft), or economics in kind, preceding money economics, or Geld-wirthschaft; it is the period of local and social restriction. Civilisation presses more and more towards freer administration of money and credit, which last exclusively governs the highest grade, the period of unrestricted competition. In the final stage, civilised life subsides again to natural conditions. Hence it is impossible to speak in absolute terms as to the expediency of any economic institutions. "The historic method," says Roscher in the preface to his *Grundriss*, "will not simply praise or blame any economic institution; for certainly but few institutions have existed which to all people, or in all stages of civilisation, have been absolutely beneficent or absolutely detrimental. The leading-strings of the child, the crutch of the aged would be unendurable to the man." And he adds by way of illustration:—"As a rule he can only rightly judge when, where, and why, for example, perpetual charges on property, forced-labour, guild-rights, monopolistic companies should be abolished, who has fully understood why in their day they had to be introduced." It is in connection with this that Roscher, in spite of his respect for the system of Adam SMITH, yet also ascribes fitness relatively to their date to the MERCANTILE SYSTEM and that of the PHYSIOCRATS. However, he does not always remain constant to this point of view. Thus, for example, the French Bishop Nicholas ORESME (*q.v.*) is praised as "the greatest scholastic political economist," because even in the 14th century he argued in favour of freedom as to the rate of interest and also advanced a monetary theory "almost entirely correct according to the opinions of the 18th century." Similar praise is given to Thucydides, who lived two thousand years earlier.

Roscher, however, exaggerated the conception of economic laws of nature when he wished them to include the observation that pigs are low in price both at the lowest and the highest grade of civilisation, or when he thinks he can explain by natural laws the reason "why hitherto steel pens have had so little success within the German customs union, sewing-needles in France, razors and scissors in Belgium."

Roscher himself is aware that with such a general theoretic basis there remains little scope for practical political economy, although, according to his opinion, it ought to form the most important part of the science. Hence he considers that he ought to warn his readers against the fatalistic inactivity which might otherwise result from the knowledge that "gegen das Alter kein Kraut gewachsen ist" (no herb is grown which can ward off old age). The *practical* statesman, he says, must always assume his people to be immortal, just as in fact every nation in this world aspires to immortality. Further, the mortality of a nation can fortunately as little be proved with certainty as that of an individual. He thinks that generally it is the statesman's part to act as physician for economic disease. "The therapeutic action of the art," thus Roscher continues, "will be profitable particularly for the following purposes: (1) to strengthen the curative powers of nature if they be too weak; (2) to moderate the impulse of nature if too violent; finally, (3) to rectify its direction if it should appear in the wrong place." From the point of view of national hygiene the period of maturity is in his opinion to be brought on as quickly as possible, and then to be retained as the stationary condition; in other words, the period of decay should be postponed as long as possible. Roscher, therefore, in no way adheres to the principle of absolute "laissez-faire et laissez-passer." On the contrary he reproaches List, for instance, with having recommended protective duties for manufacturing industry only and not for agriculture also, although the latter needs such support in a still greater degree than the former, especially in the more developed stages of civilisation; and at the same time with having undervalued the favourable effects of temporary export-duties and export-bounties.

Roscher's views of *Politics* run parallel with his economic theories. There are three constitutional types which respectively preponderate in the successive stages of historical development, viz. *Monarchy*, *Aristocracy*, and *Democracy*. This tripartite division, which was used by ancient writers, especially by ARISTOTLE, is, according to Roscher, still applicable at the present day. He places a constitutional system of government under the head of democracy, and says: "The England of the present day may be regarded as a democracy in fact, which, though moderate, is subject to but few legal restrictions." He admits another fourth form of government, which, however, is only a sub-species, and comes on with the advent of the declining period—"military tyranny," or, to follow the name of its greatest representative, Cæsarism. Cæsarism as a form of government appears when the distinction between rich and poor degenerates into a hostile contrast in social life. The proletariat is then content with that form of government which seems to offer it the most, and the possessing classes, urged by the threat of anarchy, ultimately take the same road and hand themselves over to a dictator, because, as Roscher expresses himself, "a man will rather allow body

and goods to be consumed by one lion than by ten wolves, or a hundred jackals, or a thousand rats."

Roscher explains that it is a difficult matter to decide at a given moment which of the several periods a nation has then reached, since the principal characteristics of a stage of development are manifested most clearly when the next period has already been entered on. The following are, however, according to Roscher, sure signs of a condition of decline: the growth of a brutal idea of morality; the emancipation of women; finally a marked development of socialistic and communistic currents of thought, the last especially being characteristic. As periods of universal history which have been distinguished by a powerful diffusion of socialistic and communistic ideas, the following are specially mentioned by Roscher:—

In ancient times the periods of declining Greek character and of the degenerating Roman republic; in modern times the period preceding the final success of the Reformation; and again the present time. Roscher himself is aghast at the inevitable conclusion that we consequently stand on the threshold of the period of decline. "Terrible parallel," he exclaims. "However," he adds by way of consolation, "yet a nation never declines from the height of civilisation to which it has once attained so long as it knows how to preserve the treasures of its moral life. Also, the essential differences between our own times and those of antiquity must not be forgotten, such as the abolition of slavery, and above all the presence of Christianity, bringing in its train the means of grace which render complete moral regeneration accessible to every man."

But Roscher's views could not consistently remain on this high level. They contrast so sharply with his conceptions of a natural law involving an ever-recurrent circle of growth and decay, that a relapse is inevitable.

In another place, he considers that no nation possesses unlimited intellectual capacity. If once all the ideals of a nation be used up, it must necessarily descend to lower aims which finally bring decay with them. The development of history according to Roscher therefore leads to conclusions far from optimistic. But all this only concerns life here. In the life to come, as he repeatedly brings out in his *Geistliche Gedanken*, there is added to existence eternal growth in eternal moral perfectibility, *i.e.* an eternally-continued development upwards.

This metaphysical doctrine explains how Roscher admits an earthly circle of development and of decay in the case of individual nations and persons, while he holds other views as regards humanity as a whole. He derides the attempts of certain historical philosophers, especially Herder, "to draw a parallel between the periods of universal history and the age of the individual, and even with the *seasons*," being of opinion that so long as we do not even know whether we are in the earliest or the latest part of the history of mankind, every scheme of universal history on such lines must be a castle in the air. Darwin's theory of evolution appears to him "a philosophy of nature in the bad sense of the word"; these views also determine his attitude towards the materialistic conception of history. According to him, MARX is "in general no close reasoner." HEGEL he admits, however, to have a great genius for history, but he thinks that on account of the "carelessness of his definitions" the perusal of his works is a bad preparation for political economists. Against CONDORCET he repeats the objections of the "great MALTHUS," and on similar grounds he opposes CAREY'S opinion of the progressively increasing capacity for advance of the human race. The well-known saying of Schiller, "*Die Weltgeschichte ist das Weltgericht*," ("the history of the world is the judgment of the world"), does not receive his approval. In the sense which Schiller intended, it is, in his opinion, certainly false, since in this world bad principles usually triumph. The views of A. COMTE were practically unknown to him.

If, on the one hand, Roscher was thus independent of the whole historical aspirations of his age, on the other, he is by no means in full accord with the historical school of German political economists which was founded under the influence of his teaching. Knies and HILDEBRAND already contradicted both his conception of the economic laws of nature and his rejection of progressive development of the whole human race. Schmoller and Brentano, though nearest to him in mode of thought, yet followed A. COMTE'S theory of social evolution.

But there are differences in method as well; this is insisted on by Schmoller in his article "Volkswirthschaft" in the *Handwörterbuch der Staatswissenschaften* (Jena, 1895). Referring to Roscher and Hildebrand, this article says: "The older historical political economy has repeatedly desired to turn too quickly to account the lessons of universal history; we are now aware that laborious inquiries into the details of economic history can alone supply the right basis for the study of history in its economic and joint aspect." Hence modern economic science dates only from the epoch of "economic historical monographs."

These observations aim more especially at Roscher's frequently criticised passion for scraps of information which is noticeable in many parts of his works, containing numerous analogies collected together from all periods of history without any reference to their special circumstances or essential conditions.

There is further this characteristic distinction, that Roscher places the theory of political economy at the beginning of this system, to which it is to serve as introduction, while the present adherents of this historical school place it at the end, or reserve it as a matter to be left to the future development of the science.

Schmoller explicitly declares in the above-mentioned essay his doubt "whether we can and should speak at the present day of historic laws."

But in one respect Roscher stands out far above all his successors. While these almost exclusively go to historical sources, and, broadly speaking, neglect the economic literature of the past, Roscher's principal strength is shown in the opposite direction. He did not fall into the neglect of the older systems, especially of classical political economy so strikingly prominent among

later writers. Yet while Roscher was undoubtedly one of the chief founders of the historic method of enquiry on the basis of political economy, he cannot properly be reckoned among the modern historic school of German political economy; he held on his way free from their weaknesses. Nor can we omit to record the influence of his early teaching, at a time when the study of economics had dropped almost out of touch with the requirements of the time. Those who remember the quickening effect of his early lectures at Leipzig still speak with enthusiasm both of them and of his power of interesting his hearers. Roscher, besides, was a true German, scholarly in nature, a man of an honourable disposition and disinclined to any connection with clique or party.

[G. Schmoller, *Zur Litteraturgeschichte der Staats- und Socialwissenschaften*, Leipzig, 1888.—Art. "Roscher" in *Handwörterbuch der Staatswissenschaften*, ed. by Conrad, Elster, Lexis, Löning, vol. v., Jena, 1895.—Dr. Henry, *Wilhelm Roscher und seine Bedeutung für die Nationalökonomik*, Leipzig, 1894.—Obituary notices on Roscher by Miaskowski in *Berichte über die Verhandlungen der kgl.-sächsischen Gesellschaft der Wissenschaften zu Leipzig*, 1894, with copious notices of Roscher's writings.—By K. Bücher in *Preuss. Jahrbücher*, July 1894.—By Ottokar Lorenz in *Magazin für Litteratur*, 1894.—By Julius Wolf in *Münchener allgem. Zeitung*.—By Brentano in *Berliner Nationalzeitung*.—Finally, Roscher's biography by his son Karl Roscher, prefixed to the posthumous publication *Geistliche Gedanken eines Nationalökonomen*, Dresden, 1895, with portrait.] A. O.

ROSE, Right Hon. George (1744-1818), came of a Nairnshire family. His father was an Episcopal clergyman in Forfarshire; he was brought up by an uncle in England, and served in the navy as a boy. Afterwards he entered on an official career and held several subordinate government posts, the chief one being that of secretary to the treasury, which he filled with only a few months' interval from 1782 until 1801. He sat in parliament, for Launceston, Lymington, and Christchurch, from 1784 till his death. From 1804 to 1806 he was joint paymaster-general of the forces, and vice-president of the board of trade in Pitt's second administration; and in 1807, under the Duke of Portland, he resumed the latter office and added to it the treasurership of the navy, which he held during the remainder of his life.

Rose was in the closest relations with Pitt, throughout the latter's ministerial career, and was constantly consulted by him; his intimate knowledge of the details of trade and of finance were especially valuable to the great fiscal reformer. He was the author of several pamphlets or tracts of considerable value in their day:

Brief Examination into the increase of the Revenue, Commerce, and Navigation of Great Britain since 1783, published anonymously in 1793; a similar *Brief Examination . . . from 1792 to 1799*, anon. 1799; in these he emphasised the improvements within those periods in imposition and collection of taxes, increase of revenue, better management of public debt, and the growing prosperity of the nation in spite of war expenditure; *Considerations on the debt on the Civil List*, 1802, in which the history of the civil list is sketched, and its recent administration exonerated from the accusation of waste; *Observations on the Poor Laws, and on the Management of the Poor in Great Britain*, 1805, which urged the reduction of pauperism by more systematic provision of employment for the poor, and by the better education of children, but without a thorough grasp of the facts of the case; *Observations respecting the Public Expenditure, and the influence of the Crown*, 1810, a careful explanation of the saving of 2½ millions sterling, effected by Pitt by improved management of the revenue and diminution of placemen; *Observations on Banks for Savings*, 1816; *Proposed system of Trade with Ireland explained*, 1785, a vindication of the proposals by which Pitt would have practically established free trade with Ireland.

[*Diaries and Correspondence of Right Hon. George Rose*, ed. Harcourt.—Irving's *Book of Scotsmen* (not quite accurate).—Stanhope's *Life of Pitt*.—*Gentleman's Magazine*, 1819.—Brit. Mus. Catalogue.—Parliamentary debates.] E. G. P.

RÖSLER. See Roesler, Karl F. H.

ROSSI, Pellegrino Luigi Edoardo (1787-1848), born at Carrara and assassinated at Rome, was one of the most distinguished economists of the century, "although," as Joseph Garnier, whose opinion is a weighty one, says, "his name is connected with no great scientific discovery, his clearness of thought, his shrewd sense, and the lucidity of his style have assisted the clear exposition of all the great principles he has dealt with, and greatly contributed to the honour in which they are held by those learned men whose duty it is to popularise them." Rossi studied in Italy, at Pavia and at Bologna, where he learnt the first elements of political economy. But Rossi owes to himself rather than to others the deep knowledge of the science which, later in life, he expounded so well. Of the moral sciences, law was the one in which he earliest distinguished himself, and laid the foundation of his brilliant career.

After being, in 1813, a short time at Geneva for the sake of his health, he returned to Italy, where his association with the policy of the chivalrous Murat almost cost him his life, or at least his liberty. He happily escaped from the reactionists, and in 1816 was again at Geneva, living in a studious retreat, which he only left in 1819 to study jurisprudence applied to Roman law. His after-success as professor of Roman history gained him his naturalisation in Switzerland (March 1820), which preceded by two months his union with the worthy companion of his life, who survived him, proud of bearing his name, and fully appreciating his

worth. At the end of 1827 he commenced to lecture on political economy, and in 1829 made a short journey to Paris, to publish there his first important book, *Traité de droit pénal*, 3 vols. 8vo. This book reached, in 1872, the fourth edition (2 vols. 8vo, with an introduction by Faustin Hélie).

The revolution of 1830 was followed in Switzerland by a proposal to revise the constitution imposed on that country in 1815. The views of Rossi seemed at one time likely to prevail. The *Pacte Rossi*, as his project was called, was at first warmly received, but the opposition of seven cantons ultimately caused it to be abandoned. Rossi was deeply moved by this failure, the more so, as it coincided in time with the loss of nearly the whole of his wife's property. Under these circumstances he accepted the offers which Guizot and the Duke of Broglie made him to fix himself in France.

J. B. SAY had been professor of political economy at the *Collège de France* from 12th March 1831, and on his death, 14th November 1832, Rossi was appointed to his chair, 14th November 1833, notwithstanding the formidable competition of Say's son-in-law, Charles COMTE. No difficulties occurred on this occasion. It was otherwise when the chair of constitutional law at the faculty of law at Paris was created, 22nd August 1834, and Rossi was appointed professor. A conspiracy appeared to have been entered into between both professors and students to protest. His first lectures were stormy, "*A la porte l'étranger*" and "*Parlez français*" resounded from all sides. How did the matter stand? Rossi had not received the French diploma of doctor of laws, and, notwithstanding his long sojourn in Switzerland, he had retained an Italian accent, which, however, did not injure the charm of his delivery. It was a year before calm was re-established. Rossi's patience wore out his opponents, and popularity succeeded the unjustified uproar. Rossi was naturalised in 1834 and adopted France as his third nationality. In 1836 he became a member of the academy of moral and political science, and Charles COMTE, though dying, was carried to the *Institut* to vote in his favour. *Lettres de grande naturalisation* permitted his promotion to the peerage in 1839, and in March 1845 he was appointed ambassador of France at Rome. All these honours were heaped on him without any initiative on his part.

During this time he had founded at Paris, in February 1842, the first society of political economy; this, however, gradually melted away—member after member—into another society formed by Guillaumin, Garnier, etc., bearing the same name, over the learned discussions of which Rossi presided until his departure for Rome, so fatal to him.

The revolution of 1848 broke his connection with France, and he became semi-official councillor to Pius IX., elected pope in 1846, who at that time showed himself favourable to liberal reforms, and with the assistance of Rossi endeavoured to introduce parliamentary government in the pontifical states. If this movement had even been possible, a more resolute and judicious mind would have been needed to lead it than that of the then successor of Gregory XVI. Rossi's terrible murder, perpetrated under the eyes of an armed force, inactive, if not accomplices, amid the indifference of the official world, was the signal for a revolution which gave birth to an ephemeral republic.

Rossi was an able thinker, but caution appears to have restrained him within over narrow limits. The fear of introducing too radical reforms sometimes appears to have paralyzed his mind. Thus he supported the artificial monopolies of the stock brokers (see CHANGE, AGENTS DE), of the attorneys, and of the Bank of France, and was indulgent to the treatment of sugar (see BOUNTIES ON SUGAR), utterly opposed as this was to sound economic principle. It is deeply to be regretted that politics drew Rossi thus aside from the true path. His great logical power might have contributed to establish political economy on the authoritative basis justly taken by the natural and mathematical sciences. But after all, these are but exceptional blemishes in his work. The separation of pure political economy from applied political economy, the rent of land, commercial liberty, immaterial products, freedom of labour, the teaching and the popular teaching of economic science; above all, the principle of population, on which subject he wrote an introduction in the style of a master for the French edition of the masterpiece of MALTHUS, all furnished Rossi with subject matter for pages sound in thought and brilliant in style. It is to be noticed that the moment Rossi forgets politics his courage never fails him. "It would be a strange idea," he said in one of his lectures, "what the effect would be if the claim were admitted that there is no right to pass from slavery to liberty, from injustice to justice, from barbarism to civilisation, unless the transition could be made without any disturbance, without even a shade of inconvenience. Were this doctrine supreme, the world would still be plunged in the most terrible barbarism." The moment Rossi is clear from the trammels of government, he is the absolute and unshackled advocate of liberty. "Liberty is the one guarantee which nothing replaces, it alone opens to the producer a wide and noble career, it alone procures for the consumer abundance and cheapness; let us add that it favours the fulfilment of law and morality."

Of the works by Rossi which remain, the first two volumes of his *Cours d'économie politique* were

published (1st ed. 1840-41; 2nd ed. 1840) and revised and corrected by him. His occupations, his death, prevented him from doing the same for the rest of his works, but his pupil and friend, A. Porée, *chef de bureau* in the department of public works, had taken down in shorthand and collected the lectures of his master, at least those of 1834 and 1838. His industry enabled Rossi's son to publish, in 1851 and 1854, the 2 vols. following those mentioned above. The whole 4 vols., several times reprinted, attained, in 1887, their fifth edition. *Le Cours de droit constitutionnel* did not appear till 1866-67. This book is also due to the shorthand notes of Rossi's painstaking pupil, Porée. The second and last edition appeared in 1877; this has an introduction by the learned Italian jurisconsult, C. Boncompagni. Finally, the miscellaneous works, unpublished or scattered, were collected in 2 vols., one devoted to political economy, the other to history and philosophy, which appeared in 1857 under the title of *Mélanges d'économie politique, d'histoire et de philosophie* (2 vols. 8vo).

The memory of Rossi has been honoured in many ways, and his widow left the *Institut* of France a sum of 100,000 francs (£4000), the interest of which provides scholarships in economy or law.

[Mignet read the *Éloge* of Rossi at the *Institut de France*, 1849. Finally, the Economic society of which he was the first president, celebrated, 1887, the centenary of his birth with a notice of his life and works by the permanent secretary, M. Alph. Courtois. Let us add that M. le Comte Fleury d'Ideville has immortalised him in a large volume entitled *Le Comte Pellegrino Rossi, sa vie, ses œuvres, sa mort*, 8vo, 1887, more historical, however, than economic. On 30th September 1876 Carrara erected a statue in his memory.]

A. C. f.

ROTA, Pietro (1846-1875), was born at Bergamo and died at Genoa. He was for some time professor of social economy at the university of Genoa. Rota has left two admirable works on banking—a history of banks, and a volume on the principles of the science of banking. These works, though somewhat out of date now, were of importance when they appeared.

Storia delle banche, Milan, 1874.—*Principii di scienza bancaria*, 3rd edition, Milan, 1885.

U. R.

ROTURIER. In France, every man not belonging to the *noblesse* was called a *roturier*. This word is generally supposed to be derived from *ruptuarius*—he who breaks or clears the soil; still it was applied to the burgher as well as to the peasant. The latter were especially designated by the word *manant*, he who remains on, or is tied to the land. A holding *en roture* was a tenure at a perpetual fixed rent.

E. Ca.

ROUBAUD, Pierre Joseph André, Abbé (1730-1791), born at Avignon, died in Paris, where he had lived since he was twenty. He early allied himself with the Économistes of the school of Quesnay, to whose doctrines he constantly adhered. He worked principally as a journalist. In conjunction with Le Camus he edited the *Journal du Commerce*, from 1759 to 1762; in January 1765 he took part in editing the *Journal de l'Agriculture, du Commerce et des Finances*, his chief being Du Pont de Nemours.

When Du Pont resigned in 1779, Roubaud and d'Ameilhon edited this periodical, which was then entitled the *Journal de l'Agriculture, du Commerce, des Arts, et des Finances;* it ceased in 1783.

Up to 1772 Quesnay and the elder Mirabeau had contributed to the paper. Roubaud's attacks against the despotic system of the government led to his exile and Baudeau's by Maurepas in 1775. The next year both were recalled by Necker.

Besides his work for the journals quoted above, Roubaud wrote many pamphlets on the controversies between the Physiocrats and their antagonists, Voltaire, Galiani, Morellet, etc.

A. C. f.

ROUBLE. Russian silver coin of 100 kopecks. From 1839, when the currency of Russia was reorganised, and payments in silver were resumed, to 1886, the rouble was of the weight of 319·9 grains, and of the millesimal fineness of 868. In the latter year the fineness was altered to 900, and the weight diminished sufficiently for the coin to retain its intrinsic value, the rouble now weighing 308·5 grains. Its value in sterling silver at 5s. 6d. per oz. is 3s. 5¼d.; and in silver francs, 900 fine, 3·998 francs.

F. E. A.

ROUNDSMAN. Before the passing of the Poor Law Amendment Act 1834, outdoor relief was practically unlimited. Every person applying for relief obtained an allowance from the parish according to a scale varying with the number of his family and the price of bread. Different expedients were tried to lessen the heavy burthen thus laid on the ratepayers by employing the persons in receipt of relief. One of these expedients was known as the "roundsman system." The parish paid occupiers of land to employ applicants for relief at the rate of wages fixed by the parish. The difference between the parish allowance and the sum which the employer was willing to pay for the pauper's labour was made good out of the poor-rate. What employers were willing to pay was in many places determined by putting up the paupers to a sort of auction. An able-bodied pauper might fetch 5s. a week; an infirm one 1s. 6d. to 3s.; but the exact figure would depend on local conditions. The roundsman system worked badly. Like the other methods of outdoor relief then in use, it tempted the able-bodied labourer to come on the parish; it kept down wages and made them independent of efficiency, and enabled

the employer to defray part of his wages bill out of the rates. It was condemned in the report of the poor-law commission, and became obsolete through the changes made by the Poor Law Amendment Act 1834. The name of "roundsman" was given to the paupers thus relieved because they went round from one farmhouse to another seeking for work.

[*Report of the Poor Law Commissioners*, 1834. —Eden, *State of the Poor.*—Nicholls, *History of the English Poor Law.*—Fowle, *The Poor Law* (English Citizen Series).] F. C. M.

ROUSSEAU, JEAN JACQUES (1712-78), wrote not as an economist, but as a political reformer. In so far therefore as he contributed to, and influenced, economic thought, it was chiefly due to the fact that in his day political economy was not differentiated from political philosophy. Those through whose labours this differentiation was then actually being begun, viz. CANTILLON, the PHYSIOCRATS, VERRI, STEUART, etc., were not forwarded in the work of specialisation by anything that Rousseau wrote. His one production purporting to be on the subject of political economy (1755)—the article so entitled in the *Encyclopédie*—is wholly occupied with a partial statement of his doctrine of politics, namely of the nature, object, and functions of government. In connection, however, with the last of these three points, it was inevitable that he should deal with matter of economic interest, and this is so not only in this article but in many of his writings. *L'ami de l'égalité*, as he dubbed himself to MIRABEAU, Rousseau in all his works that have a political bearing has for keynote the evil of inequality. This he struck in the discourse on the moral influence of art and science (1750), which first made him famous, developed in the discourse on the origin of inequality (1754), and made the real theme—more so than liberty —of the *Contrat Social* (1762); (see SOCIAL CONTRACT). From inequality came riches, thence luxury and idleness; and the social state, based on its primary, if tacit and unwritten, pact, has no other justification except the object of substituting moral and legal equality for the inequalities imposed by nature and the injustice resulting therefrom. Bad government fosters inequality, keeping the poor in poverty and protecting the rich in usurpation, giving only to him that hath ("Disc. on Art," etc., *Réponse au Roi de Pologne, C.S.*, I. ix.). Hence Rousseau could not fail to be much occupied with the subject of distribution of wealth, whether in relation to the functions of government, the maintenance of government, the increase of population, or the tenure of land. Whatever he wrote on these, as on other subjects, was widely read, and, owing to qualities in the spirit and style of the writer as well as to the conjuncture of social and political conditions of his time, had an extraordinary influence. Over and above the explicit adherence to his doctrines professed by some of the leading spirits in the French revolution, as well as the corresponding anti-Rousseauism in English thinkers, such as Adam Smith, Burke, etc., the origin of the physiocratic school seems to Professor Gide (*Economic Journal*, June 1897) to be best accounted for as a protest against the politico-economic doctrines of Rousseau. Whether this be or be not a tenable hypothesis, it cannot be correct to class Rousseau as a follower of the physiocrats, as is done in Kautz's economic history. All Rousseau's works were published before any distinctively physiocratic work appeared, excepting the *Tableau Économique* of QUESNAY, which preceded Rousseau's latest writings, the *Contrat Social* and *Émile*, by four years. Mirabeau, acting apparently on behalf of his set, sent Rousseau MERCIER DE LA RIVIÈRE'S *Ordre Naturel* (1767), and on receiving the former's criticisms of the extreme optimism of the book, and of the *système économique* in general, wrote a long reply endeavouring to convert Rousseau to "our" doctrine of property, population, liberty, and generally the essential laws of natural order. Rousseau's work, however, was done, and he only begged for affection, and no further worry. He could not bring himself to finish the *Philosophie Rurale*.

More plausible is the position claimed for him by Baudrillart, RAE, etc., as one of the fathers of modern socialism. It was his fearless speculations, inspired by HOBBES and especially LOCKE, not to mention the utopians of the two preceding centuries, that led directly up to issues for which the physiocrats, with their co-proprietorship of the sovereign in the soil, and their *impôt unique*, did but indirectly prepare the way (cp. Gide, *loc. cit.*). No one so forcibly as Rousseau had *socialised* the status of the individual, *democratised* the sphere of the sovereign power, and *emphasised* the notion of national property in land. Further, his hatred of inequality, together with his disbelief in the beneficent tendencies of the unregulated play of private interest, led him to utter opinions as to the equalisation of wealth which found an echo in all socialistic literature. The wage question had not then been forced to the front by industrial developments. Nor is there any very definite quarrel with capital in the crutch and ladder passage in the *Inégalité* discourse alluded to by ROSCHER (*Pol. Econ.*, lxii.), nor with competition in the preface to *Narcisse* quoted by Baudrillart. Neither does he, any more than the physiocrats, champion the cause of the peasant against the *cultivateur*. But, his general theme being to denounce moral or political inequality, *i.e.* "the enjoyment by some of the privileges of wealth, honour, power, rule, *to the prejudice*

of others," so that we see "the child ruling the old man, the idiot directing the wise, and a handful crammed with superfluities while the starved multitude lacks necessaries" (*Disc. sur . . . l'Inégalité*), his ideal economy was a state where there was "no fear nor need of any one, self-sufficing" . . . (*Sur le Gouvernement de la Pologne*, ch. xi.), in which "no citizen should be rich enough to be able to buy another, and none poor enough to be forced to sell himself" (*C.S.*, ii. 11). To bring this about, a state should give itself to agriculture, multiplying useful commodities *and consumers* as much as possible (success in compassing the latter without immigration being the hall-mark of a good government, *C.S.*, iii. 9), attend little to commerce, and contemn money, which is but the sign of wealth, and a shifting standard of value as compared with such commodities as are constants in utility (*Gouvernement de la Pologne*, xi.). To maintain such a public economy, government, as "one of its most important functions," should prevent (*prévenir*) extreme inequality of wealth, not by confiscating that of the rich, filling barns, or exempting from work, but by withholding the power of accumulating wealth; not by building almshouses (*hôpitaux*) for the poor, but in guaranteeing citizens against poverty. For instance, it should regulate the distribution of population, foster useful arts, stimulate agriculture, check luxury, abolish the tax-farmer, tax men's arms (*bras*) rather than their purses, commutation being more servile than CORVÉE, levy a proportional tax (not *unique*) on land, without any exemption, or, as this would involve a cadastral survey, on produce (*net* is not mentioned) by tithe or commutation, administer public education, and intervene generally where private interest brought the individual will out of harmony with the general will, or left it indifferent to the common good (*Econ. Pol.*). Better than any money contributions to carry on the expenses of government and justice was the plan of a "public domain" (*op. cit.*), as had been advocated by BODIN *q.v.*). Finally, to ensure political stability and executive efficiency, "the right which every individual has over his own property [in land] is always subordinate to the right which the community has over all" (*C.S.*, i. 9)—so runs Rousseau's view of what the physiocrats termed the *co-propriété du souverain*.

Comparison with the expositions given under the head of physiocracy and socialism, as well as with that under mercantilism (see THE PHYSIOCRATS; SOCIALISM; MERCANTILE SYSTEM), will bring out how far, in these few indications, Rousseau appears as an innovator. On the last-named phase of economic thought, with its traditions of commerce, money, and international aggressiveness, he may fairly be said to have turned his back, excepting in his general antipathy to *laissez faire*. Apart from his disbelief in this and in "legal despotism," he was economically more in accord with that *système économique* that was taking form while he yet wrote. His thought, that "the introduction of the superfluous makes indispensable the division and distribution of labour" (*Émile*, iii.; cp. *C.S.*, iii. viii.), is closely followed by TURGOT. And the latter starts his *Réflexions* with an allusion to a social "state of nature" as admittedly hypothetical as was Rousseau's (cp. *Disc. Inégalité*). The pictorial genius and style of Rousseau lent to the setting forth of his own hypothesis an appearance of location in time and space beyond what he himself intended. He insisted to Mirabeau that "natural and political laws" were only true in the abstract, and, himself ever concerned with practical philosophy, deprecates the attempts of historical writers to establish what ought to be by what has been (*le droit par le fait*, *C.S.*, ch. i. 2). If, as some have said, he is known less by the real gist of his works than by his most forcible phrases, this is not seldom the fate of those in whom, as in Rousseau, "did lie prophetic meaning such as none of the others show" (Carlyle).

[*Œuvres*, ed. Auguis, 1825.—*Dict. de l'Éc. Pol.*, Coquelin et Guillaumin.—Baudrillart, art. "Rousseau."—Rae, *Contemporary Socialism*.—Levallois, *Rousseau, ses amis, etc.*, *Correspondance*: "Mirabeau to Rousseau."—Bonar, *Philosophy and Political Economy*, p. 134.] C. A. F.

ROUTES, COMMERCIAL. See COMMERCIAL ROUTES (History of).

ROYALTY. Royalties, regalia, or jura regalia formerly meant those royal rights which could not be granted away with any piece of land except by being specially mentioned in the grant or charter by which the land was given. The most important of these were royal mines, wreck of the sea, and royal fish. In modern times the word "royalties" has acquired another meaning, being used in one of these senses—the money paid by the publisher of copyright books to the owner of the copyright; the money paid by the maker of patented articles by way of license to the patentee; the money paid to the owners of mines for the right of working them. A. E. S.

ROYER, CHARLES ÉDOUARD (1810-1847). A gardener in his youth, Royer, after a severe competitive examination, which he passed with great success, was, at the early age of twenty-eight, appointed to the chair of rural economy in the school of agriculture at Grignon.

Royer was sent by the French government to study the organisation of German Landbanks (the CRÉDIT FONCIER of France was not founded till 1852), and although he was quite aware that the object of these institutions primarily was political—to uphold German noble families—he pointed out the services which they might render to agriculture;

but he remained very doubtful about the usefulness of the *crédit agricole* to farmers who were not owners of land, and preferred greatly the extension of peasant proprietorship. His report was printed by official authority under the title of *Des Institutions de Crédit foncier en Belgique et en Allemagne* (Paris, 1845).

Royer previously had written a treatise on agricultural bookkeeping (*Traité de comptabilité agricole*, 1840), and a book on French agriculture (*De l'administration des richesses et de la statistique agricoles de la France*, 1843), which good judges still consider worth reading.

[See article on Royer in the *Nouveau Dictionnaire d'Économie Politique.*] E. Ca.

RUDING, Rev. Rogers, B.D. (1751-1820), came of a Leicestershire family (originally derived from Worcestershire), was educated at Merton College, Oxford, of which he became a fellow, and in 1793 was presented by his college to the vicarage of Maldon and Chessington, which he held until his death.

He published in 1798 a *Proposal for restoring the ancient constitution of the Mint, so far as relates to the expense of Coinage; together with the outline of a plan for the improvement of the money, and for increasing the difficulty of counterfeiting.* "Written to recommend the imposition of a seignorage on the coin." M'Culloch, *Lit. of Pol. Econ.*, p. 167. He contributed articles to the *Gentleman's Magazine;* and to the *Archæologia* "Some account of the trial of the Pix" (vol. xvii.), and a "Memoir of the office of Cuneator" (vol. xviii.). His chief work was *Annals of the Coinage of Great Britain and its dependencies*, 1817-19, a full and scholarly history of English coinage from earliest times, illustrated with numerous plates; it is still the standard work on the subject. His object was not scientific only, but economic; to point out defects in the coinage laws, and to indicate the true remedies, with a view to diminish the temptation to tamper with the currency.

[Nichols, *Hist. and Antiquities of the County of Leicester*, vol. iv. pp. 568, 569.—*Harleian Soc. Publ.*, vol. ii.—Brayley and Britton's *Hist. of Surrey*, iii. 164.—*Gentleman's Magazine*, vol. 90, pt. i. 1820.] E. G. P.

RUGE, Arnold (1802-1880), studied philology at Halle, Jena, and Heidelberg. Carried away by the views of Hegel, whom he read for the first time in 1833, he began in 1837 to contribute to the *Hallische Jahrbücher* that he might "infuse the Hegelian philosophy into the life of the state." This publication appeared from 1841 onwards under Ruge's sole direction, with the title of *Deutsche Jahrbücher*, but it was suppressed in 1843. This led to Ruge's departure for Paris, where, in connection with Marx (*q.v.*), he started the short-lived *Deutsch-Französische Jahrbücher*. In 1848 Ruge was elected representative of the town of Breslau in the Frankfort parliament, and he became the editor of the democratic newspaper *Die Reform*, destined to be the organ of the radical party, shortly afterwards suppressed during the political reaction. Ruge then settled down in Brighton (1850), where he resided to the time of his death.

Though a friend of Marx and Bakounin, his democratic views, like that of his other friend Mazzini, never merged into Communism.

His literary activity was very great. He translated into German the *Letters of Junius* (1847); Buckle's *History of Civilisation* (1875); Lewes' *History of Philosophy* (1871); and adapted Lytton's *Life of Palmerston* (1872). On his own account, he wrote many volumes and pamphlets, amongst which may be mentioned here—*Unser System* (1850).—*Revolutionsmodelle* (1850).—*Die drei Völker und die Legitimität* (1860).—*Was wir brauchen* (1861).—*Acht Reden über Religion, ihr Entstehen und ihr Vergehen* (1869).

[*Allgemeine Deutsche Biographie.*] E. Ca.

RUGGLES, Thomas (1745-1813), barrister, deputy-lieutenant and J.P. for Essex and Suffolk. He was an honorary member of the board of agriculture. For his friend Arthur Young he wrote in the *Annals of Agriculture* (1784-1815) letters on the "History of the Poor." He advocated schools of industry, with a view to training children to industrious habits and thus preventing pauperism. The success of some of these schools and of the Sunday school movement seemed to warrant the application of the act for the relief of the poor, 43 Eliz. c. 2, § 1, to this object. The children were employed in spinning and knitting, and were paid about 4d. a day. He was called into consultation by Pitt, when he was preparing his "Bill for the better support and maintenance of the poor," 1796, and clauses on this point were inserted in it (cp. as to these schools, Sir F. M. Eden's *History of the Poor*, 1797, vol. i., and Mrs. Trimmer's *The Economy of Charity*, 1801, vol. i. p. 193, and appendices). Ruggles is also a chief witness in regard to the houses of industry in Norfolk (see Workhouse), established 1757-1792. He shared the view entertained by Adam Smith and others of the economic evil of the old law of settlement; but he did not appreciate (*e.g.*) the evil of an allowance in maintenance of "supernumerary children" as proposed in Pitt's Bill (cp. Sir George Nicholl's *History of the English Poor Law*, 1854, vol. ii. p. 125, and Eden) or of a system of public employment for the poor (see Townsend). He gives an interesting sketch of means adopted to meet the distress of 1795-96 (cp. *Origin of the Allowance system in Berkshire* (1795); report by Richard Hall, 1st A. Rep. Poor Law Commissioners, 1835, p. 207). His writings are:—

The Barrister, or Strictures on the education proper for the Bar, London, 1st ed. 1792; 2nd ed. 1818.—*The History of the Poor; their rights, duties, and the laws respecting them*, London, 1st ed. 1793; 2nd, 1797 (see Union; Poor Law).

C. S. L.

RÜMELIN, GUSTAV VON (1815-1889), represented a district of his native Würtemberg in the German parliament of 1848, where he was an active member of the party which advocated the exclusion of Austria from the German confederation. He afterwards entered the ministry of public instruction and religion of Würtemberg, and became, in 1867, lecturer on statistics and philosophy in the university of Tübingen, of which university he was elected chancellor in 1879.

His best-known work, *Reden und Aufsätze*, 3 vols. 1875-1894, consists mainly of his addresses as rector. Rümelin was also for a long time at the head of the statistical office of Würtemberg. Statistics were always one of his favourite studies, though he also devoted himself to philosophy, philology, and literary criticism.

His width of view appears in his treatment of statistical problems; he is always anxious to show that statistics should be read in the light of existing social and moral conditions and tendencies. He does not admit that the investigation of the latter properly belongs to the sphere of statistical science, which he defines as "an *auxiliary* science having for its object the discovery of the character of human communities by means of the methodical (numerical) observation and calculation of similar phenomena," taking the word *communities* in its widest sense; in opposition to other German statisticians, he desires to hand over to the science of DEMOGRAPHY the descriptive or graphical part of statistics. In his *Geschichte der Nat.-Oekonomik*, p. 1011, Roscher contested the soundness of these views, pointing out that statistics would thus be degraded from the rank of a science to that of a mere method. This debate arose from the ambiguous sense of the German word *Staatskunde*.

The theories of MALTHUS on population attracted the attention of Rümelin over and over again, and though he readily admits that Malthus has perhaps not taken sufficient account of some prudential and social checks, which in themselves are neither moral nor immoral, he accepts in fact his main position; according to Rümelin, a constant struggle goes on between hunger and what he calls "the demoniac power" of sexual instinct. Frightened at the rapid increase of the German population after the war of 1870-71, he openly states in his *Aufsatz* on over-population (1881) that "it is the intelligent instinct of the French masses which has turned them into unconscious Malthusians. Christian and civic morality do not consist in unchangeable injunctions. . . . There have been times, which will recur, when fecundity was a social want and a social blessing; at other times, limitation and continence are a duty, and such is at present the case in Germany. . . . The present French system is the spontaneous outcome of intelligent reflection." The same assertions were repeated by Rümelin in his article on the theory of population (*Bevölkerungslehre*) in Schönberg's *Handbuch der politischen Oekonomie* (vol. i., 3rd ed. 1890).

Rümelin, as a writer, is a brilliant and thoughtful essayist, eager to avoid trenchant dogmatism, anxious also to consider all the aspects of social problems. Besides his above-mentioned *Reden und Aufsätze*, he was a frequent contributor to German periodicals and collective works on moral, philosophical, and statistical topics. Ten of the *Reden und Aufsätze* were translated into French, under the title of *Problèmes d'Économie et de Statistique* (Paris, 1896). E. CA.

RUNDALE was an ancient tenure of land in Ireland and the Scotch Highlands, under which the property of one owner was scattered in detached pieces about the estate of his tribe or clan. *Runrig* and *Changedale* were two variations of this system. Under the former the land was so divided that alternate "rigs" or strips belonged to the same owner; under the latter the portions of the common estate allotted to individuals were periodically changed amongst the members of the partnership.

The system springs from the days of collective ownership or occupation, when all the lands of a village belonged to all its inhabitants, and each individual had a right, not to a particular piece for ever, but to the use of a share in the common property for a certain time. Either to insure a just division of the land, when mensuration and arithmetic were classed with the black arts, or to prevent one man securing all the best lands, it was customary to give each man his share in every acre as it was ploughed up, or dividing the land into three classes according to their fertility, to assign a portion to individuals in each of them. The rundale tenure may be compared with the system in vogue amongst the Anglo-Saxons, before the introduction of INTENSIVE CULTIVATION, and to the customs of the early Welsh. As a rule it was only the arable fields and meadows that were treated in this way; the pasture and waste of the community were held in common. Arthur Young found the rundale and changedale systems exceedingly widespread throughout Ireland. As a rule a farm of 100 acres would be held by four or five families. The holdings were only separated by balks of grass, and as a consequence all the evils of the English "open field" culture were prevalent. In Ireland the system seems to have hardly died out yet. In the Scotch Highlands much the same tenure existed, and though by the statute of 1695, c. 23, any one partner was enabled to force a division of the lands, it seems to have lasted until fifty years ago. L. R. H.

RUPEE, HISTORY OF. The silver coin which is the standard money of India under British government can be traced back to the primitive system under which the precious metals passed as money by weight. The present rupee was inherited by the government from the East India Company, whose rupee was developed out of the many varying types of coin under that name issued by the native rulers whom the company displaced; and the original of these many types was the coined

embodiment of the standard weight of silver according to the earlier monetary system.

The unit of the system of weights was the *rati*, the seed of the *Abrus precatorius*, equivalent to 1·75 grains troy. The multiple of 100 *ratis* gave its weight (176 grains) to the first rupee of Sher Shah (1542). The numerous dynasties and petty states followed, each with its own coinage, and soon there was a multitude of rupees in local circulation of varying degrees of weight and fineness. The middle of the 18th century saw the company's territory largely extended, and its status definitely changed from that of a trading association to that of a governing power. One of the perplexing problems of the period was the confused condition of the currency. The different coins of gold and silver circulating in the bazaars were estimated to number not far short of a thousand, and of these the varieties of the rupee formed no inconsiderable part. The termination of the company's rule was already approaching before it succeeded in reducing this chaos to complete order by the establishment of one uniform rupee, but, in the meantime, in each of the three presidencies one particular type assumed predominance.

In *Bengal* the leading type was the Sicca rupee, deriving its name from the Arabic word for a coining-die. Its normal weight was nearly 180 grains, and its content of fine silver 176 grains. Among the currency troubles with which the Indian peasant was beset, not least was the money-changers' practice of charging discount on these coins according to the period for which they had been in circulation. To frustrate this device it was ordered in 1771 that rupees of the earlier years of the reign of Shah Alam, the last of the Moguls, should be rated equally with those of his nineteenth year, and that future issues should bear that year's date. Consequently the Sicca rupees, from 1773 onwards, were stamped as having been struck in the nineteenth year of Shah Alam. The coinage of the Sicca rupee continued until 1836, when it ceased on the introduction of the company's rupee.

In *Bombay* the Surat rupee predominated. The first English rupee had been struck in Bombay as far back as 1677. But the rupee of British manufacture, weighing rather less than the Sicca rupee, though containing a fraction more of fine silver, could not hold its own against the competition of the Surat rupee, a native coin of nominal equivalence, but of less intrinsic value. Its coinage ceased altogether for twenty years up to the close of the last century. In 1801 a new rupee was ordered to be struck for Bombay, its weight and fineness being almost identical with those of the present coin. In 1824 the Madras standard was adopted for Bombay.

In *Madras* several varieties of the Arcot rupee were current. Those coined at the Fort St. George Mint contained 166·477 grains of fine silver, and were styled "Madras Arcot rupees," as distinguished from other Arcot rupees of native manufacture. But for various reasons, prior to 1818, the silver rupee was not the effective standard in Madras, being over-ridden by the gold pagoda and by a nominally subordinate silver coin, the ANNA. In 1806 the company gave directions for the issue of a new rupee as the standard coin of Madras, to weigh 180 grains gross, and contain 165 grains of fine silver. It was not, however, until 1818 that currency was given by proclamation to the new standard coin.

The order given by the company in 1806 for the issue of a standard rupee in Madras was the first-fruits of the intention they had then formed to put an end to the inconveniences arising out of the existing diversity of moneys by establishing "one general system for the formation of the coin for the currency of the whole of our possessions on the continent of Asia." A generation elapsed before that intention was fulfilled. One fundamental decision reached at this time was that the future currency system should be based upon a silver standard. In earlier years the company had made several attempts to relieve currency difficulties by fixing the relative values of gold and silver as legal tender within their dominions. In 1806, convinced by the arguments in Lord Liverpool's famous letter, they adopted the view that one metal should be the standard, and that for India that metal should be silver. In 1817 the directors repeated this assertion, with the addition that no ratio should be fixed between the standard silver coin and the gold coin. Finally, in 1835, the Indian Act No. XIII. instituted one uniform silver rupee as the standard coin of British India. This rupee followed the type of the Madras rupee of 1818, having a gross weight of 180 grains and a fine silver content of 165 grains, or $\frac{11}{12}$ fine. No change has since been made in the weight or fineness of the coin; but in 1862, as a consequence of the transfer of the government to the crown, the queen's effigy was introduced into the design in place of the company's arms, and the name of the coin altered from "company's rupee" to "government rupee."

The fall in the gold price of silver, which began in the early 'seventies, and continued almost unchecked for the next twenty years, caused constant and increasing anxiety to the Indian government, as well as to the commercial interests in the country. The difficulties entailed upon the government admitted of no question. India having yearly to remit a large sum to this country in discharge of her gold obligations, every step in the fall of the exchange meant an increase in the number of rupees required to effect that purpose. The variations were sufficient to render any trustworthy budget estimate impossible; and the growing demands on the revenue, coupled with the limited resources of taxation, led at length to a position of affairs in which the authorities could not contemplate without dismay the prospect of a further fall. An additional cause of uneasiness to the government was the distress occasioned by the fall of silver to the many officers of the public service, who were under the necessity of remitting part of their rupee salaries to their families in England. It is impossible to speak with equal certainty as to the effects on the people and commerce of India. How far the fluctuations of exchange have operated to harass trade and to check investments in India has been much debated. But the representatives of the trading community were among the first and the most importunate in pressing upon the government the necessity for action. In 1876 memorials were addressed to the governor-general by the Bengal chamber of commerce and the Calcutta trades' association, urging a temporary suspension of the unlimited coinage of silver by the mints. The Indian government, while unable to agree that existing circumstances called for such a remedy, took the opportunity to represent to the secretary of state the necessity of being prepared for prompt measures, even to the extent of the transition to a gold

standard, in the event of France deciding to demonetise her silver legal tender money. This particular danger passed away, but the fall in silver continued, varied by occasional oscillations even more disconcerting than the steady fall. The gold value of the rupee, which averaged 23·126d. in the year 1871-72, before the commencement of the disturbance, had fallen to an average of 16·733d. in the year 1891-92. In June 1892 the Indian government, under stress of an apprehension that the United States might any day be driven to abandon her attempt to keep up the price of silver by her purchases of that metal, expressed to the home authorities their deliberate opinion that, failing a satisfactory agreement with the United States, the Indian mints should be closed forthwith to the free coinage of silver, and a gold standard be adopted. A draft scheme for carrying out this purpose, drawn up by the Indian finance minister, was submitted, and the proposal was referred by the secretary of state for consideration by a committee, over which Lord Herschell, the lord chancellor, presided. In their report, presented 31st May 1893, the committee discussed the plan of the Indian government, together with various alternative currency schemes which had been suggested. They were of opinion that the government expenditure admitted of no reduction adequate to the necessities of the situation, and that any resort to increased taxation would be fraught with difficulty and probable danger. The alternative schemes presented to them, such as an increased seigniorage on silver coinage, a duty on imported silver, or the coinage of a heavier rupee, were all open to objection; and not one could be recommended in preference to the government scheme. Accordingly, they felt unable to advise the secretary of state to overrule the proposals of the Indian government. But they advised that the closing of the mints against the free coinage of silver should be accompanied by an announcement that, though closed to the public, they would be used by the government for the coinage of rupees in exchange for gold at the ratio of 16 pence the rupee; and that at the government treasuries gold would be received in satisfaction of public dues at the same ratio. These modifications, designed to guard against a sudden and considerable rise of exchange, were acquiesced in by the government of India. On the 26th June 1893, the Act No. VIII. of 1893 was passed to provide for the closing of the mints to the free coinage of silver from that day; and by official notifications of the same date provision was made for the issue of rupees in exchange for gold, and the receipt of British gold coins into the treasuries at the rate of 15 rupees to the £. It is not possible as yet (Feb. 1897) to pronounce with any certainty as to the ultimate success of this experiment. There has not been a sufficient period of freedom from disturbing causes. Among such causes may be mentioned the attempt of government during the later months of 1893 to maintain a minimum rate for the sale of India council bills. The abandonment of that attempt at the beginning of 1894 was followed by a fall in the gold value of the rupee, aggravated for a while by the addition to the circulation of a considerable store of coins drawn from native hoards. The latter cause is considered to have exhausted its effects in the course of that year. The value of the rupee, after falling to a minimum of less than thirteenpence, rose gradually, until at the beginning of November 1896 it exceeded fifteenpence, and it has not since fallen below that level. But now a new disturbing element is at work in the results of famine, and we have still to await the time which shall determine whether, under the play of normal forces, the rupee exchange will reach the stipulated point of sixteenpence.

Many of the native Indian states still cling jealously to their ancient right of coining, regarding it as a sign of sovereignty. Rupees of varying quality are issued from their mints. In 1876 the attempt was made to secure a common currency by providing that the government might coin rupees of the same weight and fineness as the government rupee, but with a different device, for any native state which would cease the operations of its own mint for thirty years. The act has had but little success, yet the native rupee is not nowadays a material factor in the circulation, owing to the limited numbers which are produced, and the restricted area within which they pass.

The silver coins subordinate to the rupee are of the value of one-half, one-quarter, and one-eighth of the rupee. They are of the same fineness as the rupee, and of proportionate weight. The rupee and half-rupee are alone legal tender to an unlimited amount, the two lower denominations being legal tender only for the fractions of a rupee. The symbol "Rx" denotes ten rupees. Its use was more conspicuous in the days of the stable parity between gold and silver, when the rupee was approximately equivalent to two shillings, and Rx to £. Large sums of rupees are expressed in lacs and crores, the lac being 100,000, and the crore 100 lacs.

[Thurston's *History of the Coinage of the East India Company*; Yule, *Hobson-Jobson*; Chalmers's *Colonial Currency*; *Report of the Indian Currency Committee* (1893), and parliamentary papers of the same year relating to the currency of India. For an elaborate investigation of the number of rupees in circulation before and since the closing of the mints, see papers by Mr. F. C. Harrison in the *Economic Journal* for December 1891, June 1892, and March 1896.] W. B.

RURAL DEPOPULATION. See DEPOPULATION.

RUSSIA COMPANY. This was a company formed by an association of London merchant adventurers (see ADVENTURERS, MERCHANTS), with the object of making discoveries for the promotion of trade. It had joint stock of £6000 in 240 £25 shares. Under the leadership of R. Chancellor, who was instructed by Sebastian Cabot, a trade route to Russia was opened, when a landing was effected near Archangel 1553, and Chancellor, proceeding to Moscow, received privileges for English merchants from the Czar. In 155½ the first charter of incorporation was granted by the crown for the discovery of lands, countries, isles, not before known or frequented by Englishmen (Macpherson, ii. 117). Under this the company was to be ruled by a governor (Sebastian Cabot for life) and a board consisting of four consuls and twenty-four assistants, appointed annually by the whole fellowship. Extensive privileges, including a monopoly of the trade with Russia and with any other country discovered by the company, were granted, while ample security for the protection of merchants was obtained from the Czar. In the course of a few years further discoveries resulted in the opening up of trade through Russia with Persia, but wars and other risks prevented any considerable development in this quarter. In 1566 the company, having suffered from the intrusion of interlopers, received parliamentary sanction (Hakluyt, i. 369, 10 Will. III. c. 6) and the monopoly of trade with Russia, Armenia, Media, Hyrcania, Persia, under certain conditions, while commodities were to be carried in English ships alone, manned with a majority of English mariners. Disappointed in his hopes of political alliance with England, the Czar suspended the privileges of the company in 1571, but these were restored through the intervention of Anthony Jenkinson. Fresh difficulties arose and repeated attempts to regain exclusive privileges failed, although, in 1583, lower customs than those paid by other nations were demanded of the company as the discoverer of the sea route (Camden, *Elizabeth*, sub an. 1583). The trade soon came to be on a precarious foot-

ing, owing to the fickleness of the Czar and the competition of the Dutch and Hamburgers, and by the close of the 16th century it was much decayed. Raleigh in 1603 states that but two or three ships had been sent in the previous year to Russia (*Observations touching Trade and Commerce with the Hollander*, ed. M'Culloch, p. 16). In 1598 the company began to engage in the whale-fishery off Spitzbergen (Macpherson, ii. 213); from 1612 difficulties arose owing to the attempts of the Dutch to take part in it. In 1613 the company obtained a charter from the crown excluding all others from sailing to Spitzbergen, and succeeded for a short time in driving out both foreign and English interlopers (Macpherson, ii. 273). In addition to the Danes and the Dutch the merchants of Hull and York disputed the company's claim to exclusive privileges, while a Scotch company chartered by James I. threatened to be a danger until its charter was revoked. In 1619 the Russia Company combined with the East India Company to form one joint stock for the whale-fishery (Macpherson, ii. 287), but the ill success of various undertakings led to the abandonment of the scheme. The company was heavily in debt at this time and unable to satisfy its creditors (Hewins, *English Trade*, p. 38). The struggle for the monopoly of the whale-fishery continued, and in 1654 the formation of a representative committee of management for the whale fishery was decreed by ordinance, but this did not lead to more satisfactory results. Attempts were also made to revive the trade with Russia by W. Prideaux in 1654 and by Lord Carlisle in 1663. Exclusive privileges could not be gained, and the company was merely permitted to trade on the same footing as the Dutch. The reorganisation of the company soon followed; henceforth it traded on a regulated and not a joint-stock basis, admission being granted to all who could pay the entrance and certain annual fees. By 10 Will. III. c. 6, the former was definitely fixed at £5, and under these conditions the company existed until the close of the 18th century. Throughout its early career it had to struggle against the competition of private traders at home and of the Dutch abroad, and its history is chiefly of interest as showing the gradual victory of the interlopers in breaking down the monopoly of an exclusive corporation.

[Macpherson, D., *Annals of Commerce*, ii. 1805. —Hakluyt, R., *Principal navigations, voiages . . . of the English Nation*, 1598.—Hewins, W. A. S., *English Trade and Finance chiefly in the Seventeenth Century*, 1892.—Camden, W., *Reign of Elizabeth*.—Raleigh, Sir W., *Observations touching Trade and Commerce with the Hollander*, edited by J. M'Culloch, in Select Collection of Tracts on Commerce, 1859.—Pamphlets in British Museum, $\frac{816\ m.\ 11}{111}$.]

E. A. M.

RUSSIAN SCHOOL OF POLITICAL ECONOMY.

1st Period, p. 336; 2nd Period, p. 338; 3rd Period, p. 340.

It is no easy matter to write the history of the Russian school of economics. There does not exist in Russian literature a single work on this important subject, nor even any complete bibliographical index of economic literature. Further, the compilation of such a chronicle as is needed is the more difficult because the greater part of the economic writings in Russian have appeared not as independent books, as is usual with such compositions in Western Europe, but as articles in periodicals, to trace which in the present position of Russian bibliography is almost impossible. It has been thought necessary to preface these remarks thus to explain the difficulty which has been encountered in preparing a statement which would satisfy both Russian economists and English readers.

First Period (18th century).—No economic literature appeared in Russia earlier than the commencement of the 18th century. Until the reign of Peter the Great (reigned 1689-1725), scarcely any secular literature existed, and such scanty cultivation as obtained was based on the meagre theological literature then current, and was influenced by an ascetic religious spirit. Among the important writers up to the time of Peter, the monk Sylvester, the chief counsellor of the Czar John the Terrible (reigned 1533-1584), who wrote *Domostroi* (*The Book of Household Management*), and the learned Galician, George Krizhanich (born 1617), one of the first teachers of Panslavism, should be mentioned. Both writers were dominated by religious feeling. The first confined himself to the inculcation of the order of life, which in his opinion ought to be established in every well-regulated private household; the second, in his work entitled *Politics*, written partly in Galician and partly in Latin, and in his work *De providentia Dei*, written in Latin, described Russian life as he knew it, compared it with the life of other nations, discoursed on the wealth of the state and the wealth of the people, of trade, farming, industry, and at the same time had a perfectly clear idea of money, explaining the connection between it and value within the country, and hotly protesting against its debasement. Krizhanich's work, written in Siberia, whither he was exiled by the government of Moscow under the convenient pretence that his opinions were dangerous, was written in a language incomprehensible at the time even to the greater part of educated Russians. This explains why it had no perceptible influence on Russian economic opinion. Much greater importance had the work of a self-taught peasant, John Possoshkoff (born 1665), entitled *On Poverty and Riches*, and written in a fluent, imaginative style. The author was unacquainted

with the literature of Western Europe, and quite independently accumulated a body of opinions somewhat similar to those which bear the name of mercantilism. He insisted on the development of industry and agriculture in Russia, on the diminution of imports and the increase of exports in order to attract the precious metals into the country and to regulate the value of merchandise. The value of money altogether depends, in his opinion, on the will of the government, and being by principle an antagonist of the debasement of the gold and silver coin, he recommended the substitution of copper coin for the latter for domestic use, with an obligatory tariff. An abundance of coins, that is, of monetary tokens, appears to him a good thing. He considers that the consequences of this show themselves in the strengthening of industrial activity; for international trade he recommends the employment of bills of exchange guaranteed by a supply of gold and silver at the government bank. It is very remarkable that Possoshkoff clearly saw that the abolition of the system of Russian serfdom—which at the period when he lived was very detrimental to the prosperity of the country—was necessary. He publicly expressed the opinion that a rich peasantry made a rich emperor. These were his reasons for insisting on the abolition of the unjust poll-tax, and the division of the peasants' lands from those of their landlords.

Possoshkoff's ideas agree in many respects with those by which Peter the Great was guided in his practical work, but at the time they appeared they seemed so bold that their author was thrown into prison. It should be stated that during the first half of the 18th century printing in Russia was very little developed. Some kinds of economic ideas were disseminated through reading the government proclamations generally called *ukases* (edicts), in which complete economic doctrines were often expounded. The *ukases* of this class, promulgated by Peter the Great and Catherine II., are especially characteristic. Government guardianship, the leading idea in the *ukases* of the former, is replaced by ideas of economic liberty in the *ukases* of the latter. While Peter I. was convinced that no progress could be made except by the exertion of the power of the monarch, Catherine II. maintained that economic progress could only be reached by the removal of the interference of government. This progress she sought to increase and revivify by giving freedom to trade and industry, and by other incentives. In the interval between the reigns of Peter I. and Catherine II., a great intellectual change took place in Russian society under the influence of the intercourse with Western Europe.

The educated part of society became acquainted with the different ideas of French writers, encyclopædists, and PHYSIOCRATS, and the empress Catherine II. herself stood at the head of this intellectual movement.

In 1765 she ratified the charter of a Voluntary Economic Society, which took its rise among those of the courtiers, lords, and ladies, who were well educated and who were intimate with the empress herself. This society was in consequence for a long time the centre of economic thought in Russia. The principal question that, through the initiation of the empress Catherine, interested this society almost from the very moment of its establishment, was that of "the peasantry and their state of servitude." In the year 1766 Catherine II. anonymously furnished the society with 1000 ducats to be given in prizes to those who had written the best essays on a theme formularised by the society in the following terms: "What would be most advantageous for the country; that the peasantry should own their land or that they should possess merely personal property, and how far should their rights with regard to property in land or to personal property extend?" It is an interesting fact that soon after the offer of the prizes, 167 essays were sent in, 7 the work of Russians, the remainder of foreigners. The most remarkable of the former was one written by Polevoi, in which he argues that in comparison with serfs, peasant proprietors cultivate the soil better and therefore more profitably, this being equally advantageous to themselves and to the state. The question of "servitude" has never ceased since that time to interest the Russian economic mind. Such writers as Miller devoted all their energy to discussing the subject with the celebrated LINGUET, who maintained that servitude (serfdom) would lead to an amelioration of the lot of the working classes, and with the well-known publisher Radichtcheff, whose book entitled *A Journey from Petersburg to Moscow*, 1790, gives a striking description of serfdom in Russia, and at the same time eagerly protests against it. Thus it will be seen that the question of the peasantry was the central one of the economic literature of the time of Catherine II. It is true that the journals of the Voluntary Economic Society published not a few other economic articles, but by far the greater part of them dealt with the practical side of the question, almost without touching questions of theory. The tendency of the Voluntary Economic Society was shown at the very outset of its operations by its admission how necessary it was to study the position of rural economy in Russia. Hence acting on the suggestion of Clingstate, one of its members, it sent out questions on the subject to persons who had studied the matter, and on the receipt of the replies, printed epitomes drawn up from them. Of the editors of *The Transactions of the Voluntary Economic Society* during this interesting epoch, Stephen Junckowski (born 1762) should be specially

commemorated. He studied for a considerable time agronomy in France and England, and was one of the principal authors of the many-volumed work entitled *A New and Full System of Practical and Rural Economy*, published in 1807. During the reign of Catherine II. no Russian authors wrote on theoretic economics. The empress herself and those who were on familiar terms with her were well acquainted with the writings of French authors, the encyclopædists and physiocrats, and read them in the original. There were translated into Russian from French, VON BIELFELD'S *Institutions Politiques*, by Prince Shakowski and Professor Bagroff, by order of the empress, 1768-1775. From the German, JUSTI'S *Die Grundveste zu der Macht und Glückseligkeit der Staaten*, by John Bogayeffski, 1772-78. The first part of SONNENFELS' *Grundsätze der Polizei, Handlung und Finanzwissenschaft* in 1787 by Gavriloff, and besides these in 1780 a Russian translation was made (from French) by Popoff of MURATORI'S work, *Della Pubblica Felicità*, 1749.

To complete the description of this period, it should be mentioned that in 1773 Reichal, history professor at the university of Moscow, included in his course of lectures some details of the economic description of other countries. These lectures were published in 1775 under the title *A Short Manual of Information on the Religious, Political, Economic, and Educational Condition of certain European States.* Besides this, between 1761 and 1769 the famous Schlatser lectured on the theory of statistics at the academy of science in Petersburg. Both of these were followers of the doctrine of Archenval, the historian of economic thought in Russia during the second period.

The Second Period — First half of 19th century. — The latter half of the reign of Catherine II. (died 1796) and the short reign of her son the Emperor Paul (reigned 1796-1801), were times of terrible reaction in Russia. Those who had lost confidence in Catherine's ideas of emancipation, of which she had dreamt in her youth, not only permitted no improvement in the condition of the peasantry, but even rendered serfdom more onerous and extended its influence through the whole of Little Russia. Radichtcheff's book, mentioned above, was kept out of the bookshops by the police, and he himself was subjected to a severe persecution. His book contained a plan for granting freedom to the serfs, for which he was condemned to death, a sentence afterwards commuted to exile to Siberia. The uprisings among the peasantry, which began in the reign of Catherine II.—one, especially violent, having taken place in 1774—under the leadership of Emilian Pugatcheff, continued up to the reign of Paul I., and were a perpetual source of terror to the whole empire. The liberal ideas of the PHYSIOCRATS which had been diffused among the better educated Russians were pronounced dangerous by the government, which began to take strong measures for their extirpation. A very severe censorship of the press was instituted, though the newspapers were trifling in size, their contents were generally trivial, and in particular the writers on the condition of labour, not only in Russia but in other countries, were prosecuted. After the accession of the emperor Alexander I. (reigned 1801-1825) to the throne, economic thought began again to be active and to discuss questions of social life in Russia and the necessity of freedom for labour.

The education of Alexander I. was influenced on the one hand by the republican ideas of his Swiss tutor Laharpe, and on the other by the severe discipline of a soldier's life, which he had been strictly held to during the reign of his father. This accounts for the duality of his thought and action. At the beginning of his reign he advocated self-help and enlightenment, at the end he relapsed into mysticism and despotism tinged with asceticism. All this had a great influence on the development of economic thought in Russia, and it may be said to have made great progress. The beginning of the reign of Alexander I. was marked by an order from the minister Vasilieff to translate Adam SMITH'S immortal work the *Wealth of Nations* into Russian. This translation was made by Nicholas Politkoffski, 1802-1806. Though it was not remarkable for exactness, especially in the definition of the terms employed, it had a great influence on Russian students, who very quickly accepted the economic ideas of the great Scotchman. Through the lectures of Christian Schlötzer and his book, *Anfangsgründe der Staatswirthschaft oder die Lehre vom Nationalreichthum*, published in German and Russian 1805, Smith's ideas became known to the students at the Moscow university. Soon after they reached a wider circle, for, stimulated by the new teaching, the Voluntary Economic Society proposed in 1802 a competition for a prize for an essay on the subject, "What measures need be taken to rouse a spirit of activity, energy, and industry among the peasants?" Of those who wrote essays, Junckowski, whose work was referred to above, should be mentioned, and Professor Jakob of the university of Charkoff, who besides translating into Russian J. B. SAY'S *Principles of Political Economy* in 1805, published in 1807 *Gründsätze der Polizeigesetzgebung und der Polizeianstalten*, 2 vols. The economic ideas of Adam SMITH were also introduced into the *Journal of Statistics* edited by the academician Germain, 1806-1808. Statistics continued to be a descriptive science, and Germain was known as the author of a popular manual of statistics, and a whole series of articles published in the journal he edited. There was also published

in this journal a work very remarkable at its date, written by Michael Balugienski, rector of the university of St. Petersburg, entitled *A Description of Different Economic Systems*, in which the author discusses in minute detail the ideas of the mercantile school, of the physiocrats, and of Adam Smith. Another contributor to the journal, Vurst, wrote in the same spirit as Smith, chiefly on the finance and trade of Russia. Count Valerian Stroinoffski may be described as a representative of the school of physiocrats. His book *The Universal Economy of Nations*, was written in Polish, but translated by the author into Russian and dedicated to the heir to the throne, the grand-duke Nicholas (emperor 1825-1855). Stroinoffski's work was based on QUESNAY'S *Tableau Économique*, which had been translated into Russian in 1817 after the Russian public had become acquainted with STORCH'S excellent *Cours d'Économie Politique*, published in French in 1815. This may be said to have done more than anything else to make Adam Smith's ideas popular in Russia. Well acquainted with English and French economic literature, and also with the state of agriculture in Russia, Storch was able to give his pupils, the grand-dukes Nicholas and Michael, most useful instruction on production, exchange, and taxation. He also wrote in six volumes a work containing much of historical and practical information. Those questions on which Storch differed from Smith are pointed out by Dr. Ingram, *History of Pol. Econ.*, pp. 188, 189.

Russian scholars will notice in particular those pages in Storch's work in which he explained to the grand-duke Nicholas, the future autocrat of Russia, that individual freedom and security of private property are indispensable to the development of the economic well-being of the country—a truth which it is often necessary for Russian scholars to defend even at the present time. This same truth is emphasized by two other economists of that epoch—Arsenieff, professor of statistics at the university of St. Petersburg, author of *A Sketch of the Statistics of the Russian Empire*, 2 vols. 1818, and N. T. Turgueneff, the son of the rector of the university of Moscow, whose work, entitled *The Theory of Taxation*, 1818, is still at the present day of great value. According to Turgueneff's own statement, he sought to prove in this book that freedom is the only true basis of economic theory as for the theory of administration. Turgueneff often quotes England as an example; to prove his theory he describes the free institutions of that country, asserting that these have built up her glory and wealth.

After the war of 1812 another period of reaction recommenced, and freedom both of speech and thought was suppressed. Arsenieff and Balugienski were persecuted by the director of the St. Petersburg educational system, Runitch, who was considered, at the time, one of the most powerful supporters of civilisation. He declared the lectures of these professors to be dangerous and prejudicial to the wellbeing of society, as they maintained that freedom of labour and industry were essential to the economic development of the nation. There is little doubt that both Arsenieff and Balugienski would have been exiled had not the grand-duke Nicholas, who was personally acquainted with Arsenieff, interfered on their behalf. The affair ended with a large group of professors being deprived of their lectureships, and, in consequence, the almost entire disappearance, for the time, of economic literature in Russia. The accession of Nicholas I. to the throne (1825-1855) was, as is well known, accompanied by the political conspiracy of the "Decemberists" and an uprising of the people in the streets of St. Petersburg. After the suppression of the latter by armed force, a period of severe persecution of the slightest indication of free theoretical thought commenced. At the same time the financial affairs of the country, already embarrassed by the wars with the first Napoleon, were in a serious condition. The paper circulation was so depreciated in value that four and a half roubles in bank notes had to be given for one silver rouble. When the discussion of questions bearing on the theory of economics was forbidden, Russian economists turned their attention to the study of the practical questions, as far as was possible under the severe censorship. It is characteristic of this period that the economists endeavoured to avoid discussing in their writings the then state of affairs in Russia, and took refuge in describing, historically, the economic conditions of bygone times. In this manner there arose that school of economic thought in Russia which ROSCHER has called the Russo-German school, regarding Storch (1766-1825) as its founder.

Among the followers of this school may be mentioned Orloff, author of a book entitled *On the Credit of the State* (1833).—Gagamaester, who published in the same year his *Survey of the Finances of Ancient Russia*.—Afonasieff, author of *On Finance during the time of Peter the Great* (1848).—Gorloff, who was celebrated for his lectures at the universities of Kasan and St. Petersburg, on *The Theory of Finance* (1842), and *Economic Statistics* (1849).—Count Tolstoi, who published *The History of the Financial Institutions of Russia up to the Death of Catherine II.* (1848). This history was so much admired that Tolstoi was appointed minister of public instruction and of the home department. Vernadski, formerly professor at the universities of Kiev and Moscow, and author of *A critico-historical Investigation of Italian politico-economic Literature to the beginning of the 19th Century* (1849), and Butoffski, who wrote *An Essay on National Wealth, or the Principles of Political Economy* (1847, 3 vols.). The principles of both the two

last-named authors, especially Butoffski, were in accordance with those of the MANCHESTER SCHOOL. Generally speaking, they had no great success in Russia; their writings were commented on by a talented critic, the historian J. A. Milutin. His article, criticising Butoffski's book ,mentioned above, printed in the *Contemporary* (1847), may be compared to Roscher's works on method and logic. Another member of the Russo-German school was Count Cancrin, by birth and education a German, and the author of several works of a theoretical and practical character. Among these we may mention *Weltreichthum, Nationalreichthum und Staatswirthschaft*, in which he discusses the financial policy of the minister Gurier. Cancrin was, however, chiefly known through his practical work. During his ministry a great reform in financial affairs took place, and in a short time the metallic currency was re-established.

Third Period—Second half of 19th century.—Alexander II., ascending the throne in 1855, at a time of complete disorder in the national economy of Russia,—the close of the Crimean war, which had so clearly revealed the deficiencies of the government, the absence of the rights of the people, and the despotism of the nobility and of officials, began to reform some of the evils he found, and first of all to abolish serfdom. In 1856 a secret committee was established to consider the question of serfdom, the emperor himself being president. In 1858 the committee was reorganised; it was called the principal committee for discussing the affairs of the peasantry, and Russian society was called on to accomplish one of the grandest of the peaceful reforms of the century. Instead of 22,000,000 enslaved people, a free peasant class was created, with considerable power of self-administration, within the limits of their community and *volost*. The rights granted by law in 1861 to those peasants who were servants of the nobles were by degrees extended to all other peasants. A consequent result of the peasant reform was the appearance of an extensive literature, both of a theoretical and a practical nature, which was encouraged by the sympathy of the government. In a short time, between 1855 and 1861, Russian economic literature was enriched by works of a theoretical character. Babst, a professor at Moscow, and author of an excellent work on *John Law and the Financial Crises in France* (1852), published in 1857 his lectures *On some Conditions contributing to the Augmentation of the National Capital*, and in 1860 *A Public Lecture on Political Economy*. In 1857 he undertook the editorship of a journal entitled *The Economic Guide*, which gave information as to the state of economic science in Europe and England. In this journal were published the writings of Vernadski's wife, Marie Vernadski, describing investigations on women's labour, which were very important considering the time when they were written. The work of Tengoborski, *Études sur les forces productives de la Russie*, in which may be found a highly circumstantial description of different views of industry in Russia, was translated into Russian in 1858, and in 1859 a dissertation by the present professor at the Charkoff university, Gregory Tsekanovetski, was published, entitled *The Significance of Adam Smith in the History of Political Economy*, in which the author, giving due credit to Adam Smith's work, reproaches him with rationalism, and with not regarding the life of the people from the historical point of view. He also cautioned practical workers from being carried away by the idea of unconditional freedom in economic matters. This warning was the more necessary as the advocates of the cause of the freedom of the peasantry respecting the division of their land, based their arguments on the principle of unconditional freedom. In the same year, 1859, there appeared an excellently written and copious *Principles of Economics* by Professor Gorloff, written in accordance with the teaching of J. B. SAY, and free from extreme views as to labour. This work is in great esteem as a university text-book. No detailed account of the extensive literature which sprang up after the issue of the ukase announcing the imminent liberation of the peasantry can be given here. These essays occupied the greater part of the monthly periodicals of the time, which devoted a part of their pages to the discussion of the condition of the peasantry both from a political and an economic point of view. It is enough to state simply that these writings were permeated with the idea of the necessity of the emperor's protection of the poorer classes of his subjects, reserving to him the right to promote the free development of economic industry. "The common affairs of the whole nation are the private business of each of its members," wrote the contributors to the economic journal of the Slavophils, *Rural Reorganisation*, published in Moscow under the editorship of Koshiloff, the intimate friend of Prince Tcherkasski and G. Samarin, his colleagues. The following periodicals were imbued with the same spirit:—*Native Notes*, *The Reading Library*, the latter being in opposition to the *Russian Messenger*, edited by Katkoff, which held retrograde views, and in particular *The Contemporary*, for which one of the most distinguished of Russian economists worked, Tchernychevski, who was unfortunately exiled to Siberia under suspicion of being a member of a secret revolutionary society. Tchernychevski may be called the founder of scientific socialism in Russia. His economic novel, *Que faire* (see NIHILISM), and his *Remarks on the Principles of Political Economy of J. S. Mill*, which had been translated by him into Russian in 1860, were afterwards prohibited in Russia. They have been republished abroad, but are still not allowed to be circulated in Russia. In the period from 1861-75 all the most important economic works in English and German were translated into Russian, and new university regulations published, by which the teaching of political economy was established at the universities. The consequence of this was that the science became very popular in Russia, and at the present time there is not a single periodical in the country which does not contain articles of an economic nature. The following questions have been discussed with particular interest in Russian economic literature since the reform in 1861 to the present time:—(1) The agrarian question. Thanks to the excellent work of the local self-governing bodies, the Zemstvos, the economic statistical investiga-

tions effected in the course of the last twenty-five years in Russia provide rich materials for study both with regard to the agrarian question and other points of economic interest. Passing over the enormous amount of journalistic literature treating on this subject, the chief works devoted to it may be mentioned. As early as 1877, Janson, author of the best work in Russia on theoretical statistics, and a professor at the university of St. Petersburg, published *An Essay on the Peasants' Land and Taxation*, in which he explains the incompatibility between the portion of land given to the peasants by their former masters and the charges on it, and he attributed this to the legislation of 1861. In 1879 the founder of the economic statistical bureau in the government of Moscow, V. Orloff, published his *Forms of Peasant Land-Holding in the Government of Moscow*, an inquiry which may be regarded as classical, on the question of the common land-holding of the peasantry of the central parts of Russia, and the economic view of the subject. A year earlier, 1878, the present editor of the liberal paper, *The Russian Gazette*, Posnikoff, then a professor at the Odessa university, published a book entitled *The Common Ownership of Land*, in which he maintains, after comparing the English, German, and Russian system of land-holding, that this form was superior to all others. At the same time John Kaisler published his excellent work in German, *Zur Geschichte und Kritik des bauerlichen-Gemeinde-Besitzes in Russland*, the last volume of which only appeared in 1877. *Land-Possession and Agriculture in Russia and other Countries*, by the wealthy landowner prince Vassiltchikoff, was published in 1881. Professor Hodski's work, analogical in its contents, but far less able than the last-named, appeared in 1891, it is entitled *The Land and the Agriculturist*, the second volume dealing with the study of the economy of the recently emancipated serfs. The four following important works relating to the agrarian question deserve mention:—V. Posnikoff's *South-Russian Peasant Economy* (1891).—*The Common Good of the Peasantry*, by Dr. Vorontsovi, the author of many works on economic subjects; his book gives a careful revision of the materials gathered together by the Zemstvos on the subject of the welfare of the peasants. Professor Karisheff's book presents a similar detailed revision of peasant leases other than those granted to the emancipated peasants by their masters in 1892; and lastly, Danielson wrote *Outlines of our Reformed Economy* (1895), in accordance with the teaching of Karl MARX, whose book on CAPITAL Danielson translated into Russian. The following writers have studied the agrarian question as it exists in other countries:—Maxime Kovalevski, formerly professor at Moscow university, whose book, *The Common-Holding of Land, the Causes, Course, and Consequences of its Decline*, has a widespread reputation throughout western Europe; and Mannilov, the assistant professor at the same university, who has devoted himself to the study of *Rents in Ireland* (1895).

The peasant reform of 1861 caused, at the same time, a reform of the whole economic organisation of Russia. During the last thirty years Russia has become intersected by a wide-spreading network of railroads; a considerable number of banks have appeared both for commercial and for agricultural credit. Industrial works and factories have sprung up on her plains in increasing numbers. At the same time the indebtedness of the landowners have considerably increased, as have also the taxes levied on the people. The national debt has reached the proportions of 2,278,894 thousand roubles (roubles converted as 6·25 = £1) (£364,623,040), and the constant fluctuation in the value of paper money, while it could not be exchanged into gold, has caused periodical crises in the national economy of the country. It is not therefore wonderful that the study of the science of economics in Russia has been concentrated on the above-named questions. Some of the principal works of interest in connection with these questions may be mentioned here. As early as 1861 the academician, Bezobrazoff, published his work entitled *Landed Credit and its Contemporary Organisation in Western Europe*, a book which for a long time was the recognised authority on the various banks for land-credit which arose at that time. Ten years later, in 1871, another work appeared equally authoritative on this point, entitled *Credit, Banks, and the Currency*, by Kaufmann, a professor at St. Petersburg university. Both of the last-named economists follow the teaching of the Manchester school. The tenets of RODBERTUS and the socialists found an adherent in Tchaslawski, whose book *On the Question of Landed Credit* appeared in 1881, and also in a degree, in Hodski, author of *Landed Credit in Russia and its relations to the Peasant Landowners* (1882).

Railway economics have been carefully examined by Tsekanovetski, professor of the Charkoff university, who wrote *Railroads and the State*, 1869; by Tchuproff of the Moscow university in *Railway Economy*, 1875; by Golovatchoff in *History of the Railway System in Russia*, 1881; by Pickno of Kieff university, in *Railway Tariff*, and by Witte, the present minister of finance (1897), in *Principles of the Railway Tariff*, 1884. These works had an immediate effect on the progress of railways in Russia. As is well known, the greater part of the railroads have been bought by the government, which also controls the tariffs of those lines which still belong to private companies.

The question of the currency in Russia has been much before the public there during the last ten years; an impetus being given to this through the work of Adolph H. Wagner, then professor at Dorpat, afterwards at Berlin, on Russian paper money, *Die russische Papierwährung, eine volkswirthschaftliche und finanzpolitische Studie nebst Vorschlägen zur Herstellung der Valuta*, Riga, 1868. This book was translated in 1871 into Russian, by Professor N. Bunge of the Kieff university, afterwards minister of finance. To Bunge the honour must be ascribed of having placed Russian finance on a sound footing. Under his influence, and in view of the imminent reform of the money currency, the work of Prof. Antonovich of Kieff, afterwards deputy-minister of finance, entitled *The Theory of Paper Money, Currency, and Government Notes*, 1883, was published,

Antonovich did not sympathise with Witte in the question of the money reform, and was obliged to leave his post as deputy-minister. The book by Brant, *The Theory of Rates of Exchange*, 1892, closely analyses the phenomena of the rates of exchange. Prof. Sudaikin, of the St. Petersburg university wrote on *The Government Bank*, 1891. This work is important as explaining the Russian money currency and the arrangements of the bank. Prof. Alexander Miklashevsky of Dorpat wrote *Money: An Attempt to Investigate the Main Positions of the Classical School of Economic Theory in connection with the History of the Question of Money* (Moscow), 1895 (see *Economic Journal*, 1896, pp. 234-37); this book forms an exhaustive treatise on the theory and history of money.

The greater number of Russian economists have been mono-metallists. Of the bimetallists two only deserve attention — Sokalsky, professor of statistics at the Charkoff university, recently dead, who published in 1896 a pamphlet entitled *Reforms in Terms*, and Prof. Isaieff of the St. Petersburg Lyceum, who has written several articles in journals advocating a money reform at the present time.

Our economists have assigned, comparatively speaking, very little place in their researches up to the present time to questions concerning the condition of large manufactories, as also to the labour question in Russia, perhaps because the system of home industries has prevailed. The growth of large industries working for a large market which profit in Russia by a highly protective tariff, has not yet been thoroughly studied. But at the present time the questions of free trade and protection, and whether it is indispensable that Russia should pass through the same phases of economic development as Western Europe, while there is no need that she should do so, divide Russian economists into several groups, antagonistic among themselves. The merchants and manufacturers are strong partisans for protection, as an apologist for which should be named the celebrated Russian chemist, Mendelaieff, whose book *A sensible Tariff or an Investigation of Industry in Russia in connection with her general Customs' Tariff*, published in 1897, supplies much interesting information about the natural riches of the country, and the growth of its industries, but it is marked at the same time by highly doctrinaire views. Landowners and that vast class of persons who live on their private means are in Russia the partisans of free trade. It falls to the lot of these classes to bear all the expensiveness of the products of the large Russian industries. The book by Noffikoff, *Protection*, 1891, may be set against that of Prof. Mendelaieff as an eager defence of the idea of free trade. The studies of Prof. Yanschull of the Moscow university are altogether objective and impartial in character. He wrote *English Free Trade*, 2 vols. 1876-82, in which, having traced its history, he describes those circumstances which have made free trade an economic necessity in England. Prof. Yanschull is one of the most industrious among Russian economists. When during the administration of Bunge, as minister of finance, an inspectorship of factories was established in Russia, Yanschull was appointed inspector for the Moscow district, and his *Reports*, even at the present time, serve as a valuable text-book for the study of the condition of factories in Russia. Of a whole pile of writings by this same scholar on various questions, we may mention here his extensive course of lectures on finance, 1895, and "Industrial Syndicates or entrepreneurs unions for the regulation of production especially in the United States of America," St. Petersburg, 1895, which are described in the journal *Revue d'Économie Politique*, 1896. Prof. Isaieff, previously mentioned, has also applied himself to the study of questions of industrial economics—he wrote the best treatise on *Theoretic Economics in Russia*, 1st ed. 1895, and a treatise on *Industrial Societies in France and Germany*, 1879. A socialist in his views, Prof. Isaieff has very attentively studied that common form of industrial co-operation in Russia known as workmen's associations (see ARTÉL), and also the peasant trades of the government of Moscow. These vast researches appeared in 1877 and 1881. Isaieff believes in a future development of the welfare of the peasant class through productive associations, thus approximating to the group of economists which appropriates to itself the appellation nationalist; seeking thus to connect itself with the idea of the nation, it favours collectivism and the management of industries by the state, and trusts to do this by means of workmen's associations, founded on the principle of the general possession by the workmen of the instruments and results of production. Among well-known representatives of these opinions are Dr. Vorontsovi, Prof. Karisheff, and also Fortunatoff, the professor of statistics at the institute of rural economy at New Alexandria, the author of numerous works on the statistics of rural economy in Russia, and Kablukoff, assistant-professor at Moscow university, author of *The Question of the Working Class in Agriculture, 1884*, in which he looks into the significance of hired labour in English rural economy and studies the influence of its present organisation and the condition of the working class on production. This group of writers have their organ, the journal *Russian Wealth*, published in St. Petersburg. One must acknowledge that writers of this school have the merit of studying attentively the economic condition of the peasants, but one cannot also avoid reproaching them with the want of originality of their theoretical and in particular of their philosophical views. The followers of the teaching of Karl MARX form another division of Russian economists: as philosophers these are economic materialists. As the best example of this mode of thought, Ziber, the late professor of the Kieff university, may be cited. His works, *Outlines of primitive Economic Culture*, 1883, and *Ricardo and Karl Marx in their socio-economic Researches*, 1885, may be compared with the best works of the writers of Western Europe, both for the fulness and brilliancy of their exposition and for the width of the study they evince. Among the latest writers of this school may be named Tugan Baranoffski, assistant professor at St. Petersburg university, author of an able enquiry into in-

dustrial crises in England (1895)—a fellow-labourer who is publishing at the present time, in Russia, a large encyclopædic dictionary. and who is the author of several pamphlets—Struve; and the Russian political exile, Plechanoff. This school published its own organ, a journal entitled the *New World*, in St. Petersburg.[1] This school believes that economic development in Russia will follow the same lines as it has done in Western Europe; that no workmen's associations, and no peasant communities will save Russia from the calamity of the supremacy of capitalistic economy—that in the development of manufacturing industries the systems of small industries now connected with agriculture will disappear, that the peasantry in the future will change into a landless working-class, and that the sooner this wearisome process comes to an end the sooner will it be possible to enter on the organisation of a working class of society which thus belongs altogether to the future. Unfortunately the present state of this working class of society is far from bright, and is very imperfectly studied. No works thoroughly investigating the condition of the working-class exist, probably because the censors would not allow such works to pass. Meanwhile in spite of facts, expressed sometimes in the form of immense strikes, which constitute, according to existing legislation, a serious capital crime, it is asserted in competent circles, and by the conservative press, that the labour question does not exist in Russia at all, and that the relations between the working people and employers are altogether of a patriarchal character. A little information concerning the condition of the working-class in Russia is, however, scattered through journalistic literature. Amongst these are some remarkable articles by the historian, Semevski, on the working-people and gold-mines in Siberia—some is to be found in the reports of factory inspectors, who unfortunately have ceased to publish them for general information, and some in certain publications of the trade and factory department of the minister of finance. In 1895 the assistant professor of the St. Petersburg university, Yarotski, published his work, *The Insurance of Workpeople in connection with the responsibility of Employers*, more theoretical than practical.

The historical school of political economy has but few representatives in Russia. Among them is Korsak, whose book *On Forms of Industry in General and of the Signification of Home Production in Western Europe*, 1861, is still important. Aristoff, the author of a valuable work, *The Industry of Ancient Russia*, 1866. Professor Yanschul and Professor Tsekanovetski previously mentioned, and Tchuproff of the Moscow university, author of a text-book on political economy and its history, used throughout the Russian universities. Levitski, professor at Charkoff university, wrote on the problems and method of the science of national economy 1890, and Ivan Miklashevsky, who wrote in 1894 an *Investigation into the History of Rural Economy and the Colonisation of Southern Russia.* In conclusion, it should be mentioned that during the last ten years the Russian ministry of finance and agriculture has published very valuable researches on different questions of economy, prepared by the officials of these departments. Such for instance is the collection of information on different phases of industry in Russia published by the ministries in Russia and England on the occasion of the exhibition at Chicago 1893, and of that of Nijni-Novgorod in 1896 and many others. The present head of the ministry of agriculture in Russia, Jermoloff, is the author of a valuable investigation of systems of agriculture, 3rd ed., 1895. Of economists who have studied the questions of finance and taxation the following deserve notice: Bloch, the author of a four-volumed work on *The Finances of Russia during the 19th Century*, furnished with extremely exact statistical data, 1882, and such details regarding their history that the work was not allowed to be sold; the professor of the university of Kasan, Levoff; of the St. Petersburg university, Lebedeff; of the Moscow university, and also the historian, Mihoukoff, at present professor at Sophia (Bulgaria); and Lappo Danileffski, professor of the St. Petersburg Historio-Philological Institute. The first published, 1892, a full investigation entitled *The State Economy of Russia during the first quarter of the 18th Century and the Reforms of Peter the Great*, the second is known for his work *The Organisation of Direct Taxation in the Government of Moscow in the 17th Century.* Both the above named works are founded on careful study of still unpublished materials among the archives of Russia. I. M.

[1] This journal is now (1898) forbidden by the government.

RYOT (literally "protected") denotes an Indian cultivator whether he is under a ZEMINDAR or, as in Bombay and most of Madras, independent in his relation to the revenue authorities. It is in the latter capacity that he is usually referred to and will be described here.

Where land is settled on the "raiyatwári" system, as it is called, the land of some ryot is taxed field by field according to its soils, position, and irrigation, but so as not to exceed 50 per cent of the net produce. The settlement holds, usually, for thirty years. The waste is not "settled." Extracts from the settlement register are used as title-deeds. The ryot may give up his holding and also his liability for revenue. About 85 per cent in Bombay may be called owners, and they own on the average 24 acres each. Assam and Burma are "settled" on similar lines.

In "raiyatwári" districts an overlord in receipt of what may be called fee farm rents from the ryot, and joint ownership of a ryot and other members of his family, are sometimes present. Again, "Zamindári" tenures of individuals, and of landlord groups of villagers, and "raiyatwári" tenures, have passed in historical times one into the other; for all this the fiscal corresponds to a real

distinction something like ours between a district of MANOR, the MARK SYSTEM, and PEASANT PROPRIETORS respectively; but in India taxation, in Europe ownership, is the root of the distinction. The differentia of the "raiyatwári" district is that there is a "headman" of each village, whose holding is usually free of land tax, and he is never responsible for his co-villagers' land taxes. The other officers of the village are also usually rewarded with free holdings.

[See ZEMINDAR where authorities are specified. Yule, *Hobson-Jobson* — R. Jones, *Peasant Rents* (1831), rep. in *Economic Classics* (1895), classes peasant rents thus: (1) serf or labour; (2) metayer; (3) ryot; (4) and cottier rents. He does not sufficiently keep European ideas of ownership out of the Indian discussions. J. D. R.

S. W., GENT. (W. Smith, according to W. C.[1] *England's Interest Asserted*, 1696, p. 19), wrote *The Golden Fleece wherein is related the English Wools in its Manufacture* (1656), in which he urged the restoration of searching and measuring powers wielded, before 4 James I. c. 2, § 22, by the royal AULNAGER, whose office he overvalued as MALYNES did that of the Royal Exchanger (see EXCHANGER, ROYAL). His arguments are mainly derived from J. May (1613) and the title recalls Sir W. Vaughan (1626). He also (like W. SCOTT) urged strict apprenticeships; and his wish to limit the export of wool started the famous controversy in which FORTREY (1663), CHILD (1667), and W. C. (1669), took part. J. D. R.

W. S. (STAFFORD). See W. STAFFORD.

SAAVEDRA-FAXARDO. See FAJARDO.

SAC AND SOC. See SOCMEN and SOCAGE.

SADLER, MICHAEL T. (1780-1835), a vigorous opponent of MALTHUS (*q.v.*) and "the political economists," was M.P. for Newark 1829-1832. Though concerned with continuing controversies, his two books *Ireland, its Evils and their Remedies*, London, 1828, 8vo, and *The Law of Population*, London, 1830, 8vo, are little help to the modern reader. Great as has been the influence of MALTHUS's essay on subsequent thought, the essay itself is little read—much less the answers it called forth. Sadler's two remedies for Irish ills were a poor law, enacted a few years after the issue of his book, and a tax on absenteeism. More interesting was his attitude on other questions. In opposing the reform bill of 1831 he anticipated a line of argument, afterwards used by Disraeli, that the bill, establishing a uniform middle-class franchise, was largely an anti-democratic and disfranchising measure. A bill he introduced the same year is interesting in the light of subsequent history. Cottages were to be rebuilt, and garden allotments granted to agricultural labourers. The deserving were to be rewarded by the opportunity of keeping a cow, to be depastured on a general allotment. Rightly does the author of his *Memoirs* characterise his system as "paternal." He was more practical in espousing the cause of the factory children. His labours as chairman of the committee on the subject—session of 1831—probably shortened his life. He was the Parliamentary leader of Factory Reform, and it was only when he lost his seat that Lord Shaftesbury (Lord Ashley) was pressed into the front place. This deserves commemoration, as the Factory Acts struggle may be regarded as the occasion when LAISSEZ FAIRE received its first serious blow. He was a strong advocate of the corn laws and protection; he opposed the new poor law, and, on currency questions was in favour of inconvertible paper money. But the man was himself of more importance than his opinions. His speeches contain passages of undoubted eloquence; and he may be remembered as the most disinterested and guileless of tory democrats.

[*Memoirs of the Life and Writings of Michael Thomas Sadler*, London, 1842, 8vo]. H. E. B.

SAINT-AUBIN, CAMILLE (1758-1820) born in the duchy of Deux Ponts, died at Paris. A German by birth, he was attracted by the revolution, and threw in his lot with France. During the reign of Terror he was imprisoned, but liberated on 9th Thermidor, an ii. (27th July 1794), was appointed professor in one of the central schools (colleges of secondary education) established under the directory, then after the *Coup d'État* of 18th Brumaire, an viii. (9th Nov. 1799), he entered the *Tribunat* on 4th Germinal, an x. (25th March 1802), whence his opposition spirit caused him a few months later to be expelled. Up to that date he had written many pamphlets, all on subjects of the day, but too often paradoxical. This caused J. B. SAY to nickname him the *bouffon* of political economy, but at times his works were full of good sense and truth—during the empire he devoted himself to education, in particular to a course of instruction in finance, and wrote a pamphlet on the *Monopoly of Tobacco*. He died soon after, leaving behind him a translation of J. BENTHAM's *Rewards and Punishments*.

His best work from an economic point of view is his pamphlet *Les Banques Particulières* (an v.

[1] W. C. was William Carter, a busy informer and writer of pamphlets against exporting wool, *e.g.*, *Brief Advertisement*, 1672; *Full and clear Answer to a Paper intituled Reasons for a limited Exportation*, 1677; *Summary of certain Papers*, 1685; *Proceedings against Transportation*, 1693; *Abstract of Proceedings*, 1688, 1694; *Usurpations of France*, 1695, cp. J. Smith, *Memoirs of Wool*, 1757, v. i. pp. 163, 168 n., 179, 199; *Cal. of State Papers*, Dom. Ser., 1671-72, pp. 155, 156. His writings are dull, and owe much to W. S., and assume that no wool can be manufactured unless wholly or partly British or Irish. Possibly the same W. C. wrote *Trade's Destruction . . . or Excise decryed*, 1659; and *A broadside against the Window Tax*, 1695.

1797), in which he speaks in favour of a free issue of notes to bearer by certain banks to be cashed in specie on demand.

Besides DU PONT de Nemours, he is the only writer we know of at that date in favour of the freedom of banks, though, to be exact, there was also the president of the Bank of France, Lecoulteux-Canteleu, whom the emperor contrived to replace by a governor nominated by himself, when, in 1806, he granted the monopoly of issue to that great house of business. A. C. f.

SAINT CHAMANS, VICOMTE AUGUSTE DE (1777-1861), born at Paris, died at Chaltrait (Marne). A deputy, 1824-27, then councillor of state till the restored monarchy came to an end.

His works are based on two erroneous views which corroborate each other:—the MERCANTILE SYSTEM and PROTECTION. He was the most distinguished of the upholders of the theory of the BALANCE OF TRADE. Just as the Spartans held out the drunken slaves to their sons as warnings to them against intoxication, let us give, for those who now deride free trade, the titles of St. Chaman's books, which, in their day, had some reputation. *Du Système d'impôt fondé sur les principes d'économie politique*, 8vo, 1820.—*Nouvel essai sur la richesse des nations*, 8vo, 1824. These two books, revised, formed the foundation of his *Traité d'économie publique*, 3 vols. 8vo, 1852. In this last work the following sentence appeared. We will give it without comment, to be admired by the veteran adherents of protection. "*Bénissons les obstacles que la cherté du combustible oppose chez nous à la multiplicité des machines à vapeur*" ("Let us be thankful to the obstacles to the increase of steam-power in applied machinery, which are caused by the dearness of fuel in France"). It should be added that these works are examples of good literary power, and their author has always held the esteem of the public. A. C. f.

SAINT HAIPPY, M. DE. See LOTTIN, A. P.

SAINT PÉRAVY (JEAN NICHOLAS MARCELLIN GUÉRINEAU DE) 1732-1789; author of novels, comedies, and books on social and economic topics, he was a contributor to the *Journal de l'Agriculture et du Commerce* of DUPONT DE NEMOURS.

In 1767, his *Mémoire sur les effets de l'impôt indirect sur le revenu des propriétaires de biens-fonds*, printed the following year in Paris, received a prize from the *Royal Agricultural Society of Limoges* in competition with GRASLIN, who only obtained a *mention honorable*. TURGOT wrote *Observations* (*Œuvres*, ed. Daire, i. pp. 416 *et seq.*), on the papers of both; Saint Péravy closely followed QUESNAY'S views on the *produit net* exclusively yielded by land, whilst Graslin maintained that wealth was derived from labour. In a note reprinted by DAIRE (p. 416), Dupont de Nemours remarks that both papers cannot be read without difficulty, owing, amongst other causes, to an affectation of metaphysics common to both rivals. E. Ca.

SAINT-PIERRE, CHARLES IRÉNÉE CASTEL, Abbé de (1658-1743), born at the château of St. Pierre-Église near Barfleur (Manche); was a man who formed many plans, generally acknowledged at the present day as likely to succeed, and some of them even have been realised. He always kept the interest of the public before him as his aim, never his own. He was a man of strong character; as an example of this, he allowed himself to be expelled from the French Academy of which he had been a member since the year 1695, because he would not give Louis XIV. the title of the "great." He was moved to this by the misery of the people during the last years of that king's long reign—we will not call it that grand reign.

His *Projet de paix perpétuelle*, 3 vols. 12mo, 1713, has, perhaps, more than anything else, made people regard him as a visionary.

In our time, however, international arbitration has had some success, which makes us think the dream of the Abbé de St. Pierre may perhaps one day be at least partially realised. His *Discours sur la Polysynodie* (1718, 4to; 1719, 12mo), is some kind of plan for a political and administrative constitution. Like the disciples of St. Simon a century later, he maintained that the Golden Age was in the future, not in the past. One work of his, less known though perhaps better worth knowing, is *Annales politiques*, a contemporary public history of the period 1658-1739, containing original thought and, very often, the signs of good sense and consequently of a sober and impartial judgment. The works of this "*homme de bien*," as he was called in his time, are rare and difficult to collect, sometimes they are heavy reading.

M. Gustave de Molinari has devoted a volume to the Abbé de St. Pierre, entitled *L'abbé de Saint-Pierre, sa vie et ses œuvres*, 18mo, 1857, in which, after a concise account of his life, he gives some extracts—those most worth knowing—from his works. A. C. f.

ST. SIMON (ST. SIMONISM), CLAUDE-HENRI, COMTE DE (1760-1825). The count de St. Simon was descended from the younger branch of the family of the Duke de St. Simon, the celebrated author so well known as connected with the court of Louis XIV. He was very proud of his noble birth and relates that his servant had orders to call him every morning with the words, "Rouse yourself, Monsieur le Comte, you have great things to accomplish to-day." In the same spirit he made it a rule "to lead, while his strength lasted, the most original and most active life possible." And he adhered strictly to this maxim; first he served in the war of American Independence, then he made a plan for cutting the Isthmus of Panama, was imprisoned during the revolution, travelled in England and Germany, played the part of a grand seigneur, was ruined, fell into the most terrible want, attempted to commit suicide in 1823 only a short time before his death from natural causes, and finally, after his death, was regarded as the apostle of a new religion.

It was not till 1817, and therefore when he

had attained a considerable age, that he brought out his first works—among these was his celebrated *Parabole* (1819), a bitter satire directed against the governing classes, against whom he inveighed as parasites. For this he was prosecuted by the government, but their opposition made him famous. His principal work is *Du Système Industriel* (1821). But it was only after his death that the influence of St. Simon became at all considerable. This was principally due to his two pupils BAZARD and ENFANTIN, who were the founders of the St. Simonian School. They set on foot a systematic course of promulgating their doctrines in different quarters of Paris, established many journals of which the best known was the *Globe*, and finally established a community almost resembling a religious house, at Ménilmontant, a suburb of Paris; this, however, was broken up by the law prohibiting such associations. The influence exercised by St. Simon and his followers was incredible, it was a perfect fascination. Almost every one who is well known of the generation which dates from 1830 belonged more or less to the school of St. Simon. It is enough to mention here, besides the most illustrious of all, Auguste COMTE, economists like Michel CHEVALIER, socialists like LEROUX, engineers like Lesseps, financiers like E. PEREIRE, politicians like Hippolyte Carnot (the father of the late president of the French republic), artists like the musician Félicien David, historians like Augustin Thierry, and many more. This influence, more than the personal fascination so extraordinary but so very real, exercised on their contemporaries by St. Simon and Enfantin—le Père Enfantin, as he was called—can be explained as follows. The doctrine of St. Simon, highly aristocratic in reality, since he would entrust the government only to "the most worthy," marked a reaction against the French Revolution—against the idea of an absolute, a "brutal" equality. It marked, also, a still more absolute reaction against the martial and military spirit of the Napoleonic period, and announced—as Herbert Spencer did later—the substitution of the industrial for the military régime. Thus it was admirably adapted to entrap *savants*, manufacturers, and artists to whom it promised sovereign power. On the other hand, it professed to carry on and complete the work of the revolution by abolishing the privileges of birth. Privileges of birth had been abolished by the Revolution only in matters relating to public functions, but not in matters relating to economic functions, those of the employer, for example, or the landed proprietor. These powers still, as formerly, fell to the recipient by the chances of heredity, no matter how incapable or unworthy he might be. St. Simonism sought to suppress the last and the most important heritages—hereditary wealth and hereditary poverty. The abolition of heredity, to have its due effect, was to involve, if not the abolition of the absolute right of property, at least its transformation into a life-interest, forming a kind of public trusteeship. According to St. Simon the landed proprietor, the manufacturer, and the merchant should all become really "public functionaries," employing the instruments of production confided to their charge to the best possible advantage for the interest of society—as the captain with his warship or the artilleryman with his gun.

The basis of all this is the theory taught at the present time by various schools, and especially by that of CHRISTIAN SOCIALISM, that the proprietor and the employer should consider themselves as exercising a social function, and should make the most of what has been entrusted to them as in the lesson contained in the parable of the "talents." But the followers of St. Simon were not content with a simple metaphor. They drove the idea of association to its extreme limits, even as far as assimilation, and refused to admit that a social function might be hereditary without any guarantee of capacity. Their doctrines were briefly and clearly summarised in a letter dated 1st October 1830, which we give here, addressed to the president of the Chamber of deputies and signed Bazard and Enfantin: "The followers of St. Simon believe in the natural inequality of men, and look on this inequality as the basis of association, as the indispensable condition of social order. All they desire is the abolition of every privilege of birth without exception, and as a consequence the destruction of the greatest of all these privileges, the power of bequest, the effect of which is to leave to chance the apportionment of social advantages, and to condemn the largest class in number to vice, ignorance, and poverty. They desire that all instruments of labour, land, and capital, which now form, subdivided, the inheritances of private owners, should be united in one social fund, and that this fund should be operated on principles of association and by a hierarchy, so that each one will have his *task* according to his *capacity*, and *wealth* according to his *work*" (*Doctrine de St. Simon*, vol. i.).

But who is to regulate this hierarchy? Who is to distribute to each his duty, the idea of descent being abolished! By what sign is the most worthy to be recognised? On these points the teaching of the followers of St. Simon is very vague. They say that the *chef-industriel* in each city, whom they term the mayor (*maire*), "will distribute to each one his duties according to capacity and not according to birth, give to each tools for work, regulate the remuneration, the income of the employment," but they do not tell us by whom these

chefs-industriels themselves will be chosen. *Quis custodiet ipsos custodes?* However, they tell us in enigmatical form, that this care will devolve "on him to whom social destiny is most dear" (*Doctrine de St Simon, Exposition*, 7me Séance in note), that is to say, on him whom he calls "the priest," and on whom sovereign power is conferred. Thus the St. Simonian organisation becomes a real theocracy, St. Simon and Père Enfantin being the true priests of its mysteries. The ruin of the school of St. Simon was brought about by its pretensions to found a new religion,—"Moses, Jesus, St. Simon, are the three *living* laws,"—and also by its doctrine on the relations of the sexes, which tended to a sort of mystical eroticism, and led to a schism in the school. Of the doctrine of St. Simon there remain, however, some ideas which the socialists of the present day have availed themselves of to their advantage, for instance,—the idea that rights of property, inheritance, and individual liberty ought to be subordinated to social utility, and that the actual economic organisation, which is founded on individual liberty, rights of property, laws of inheritance and competition is anarchical, and finally that the only means of remedying this is to subordinate all these individual rights to social utility as the primary base.

Œuvres de St Simon, 2 volumes, 1832, edited by his pupil Olinde de Rodrigues, containing not all, but his principal publications. *Doctrine de St Simon*, 2 vols. 1831-32, containing an explanation of the doctrine by Bazard in a series of conferences, and re-edited by him with the help of Enfantin and Hippolyte Carnot.

[Louis Reybaud, *Études sur les Réformateurs*, vol. i., 7th ed., 1840.—William Sargant, *Social Innovators and their Schemes*, 1858.—Paul Janet, *St Simon et le St Simonisme*, 1879.—Warschauer, *St Simon und die St Simonisten*, 1892.—George Weill, *Un précurseur de socialisme, St Simon et son Œuvre*, 1894; also *L'école St Simonienne, son histoire, son influence*, 1896.—Booth, *St. Simon and St. Simonism*, London, 1871.—J. S. Mill, *Autobiography*]. C. G.

SALE OF GOODS. The law as to the sale of goods has been codified by the Sale of Goods Act 1893. This act is divided into six parts, of which the first deals with the formation of contracts for the sale of goods, whilst the second, third, fourth, and fifth respectively relate to the effects of such contracts, their performance, the rights of unpaid sellers, and actions for breach of contract; the sixth part is supplementary. In the first part a distinction is drawn between contracts which have the effect of passing the property to the purchaser and mere agreements to sell; and the rules are given as to the formalities prescribed in respect of the formation of contracts for the sale of goods. As a general rule such a contract may be made in writing or by word of mouth, or partly in writing and partly by word of mouth, or may be implied from the conduct of the parties; but a contract for the sale of any goods of the value of ten pounds or upwards is not enforceable by action unless the buyer has accepted the goods or has paid part of the purchase price, or unless the party to be charged has signed a written contract relating to the sale. This part of the act also deals with the conditions and warranties generally implied on the sale of goods and their effect.

The second part contains rules for ascertaining the intention of the parties as to the time when the property passes, and also deals with the effect of sales by persons not being owners of the goods. As a general rule the buyer acquires no better title to the goods than the seller had, unless the owner of the goods is by his conduct precluded from denying the sellers authority to sell, but this rule is subject to certain exceptions among which those arising under the provisions of the FACTORS ACTS (*q.v.*) and the case of sales in market overt according to the usage of the market, are the most important.

The third part, besides containing rules as to time and place of delivery and the risk of transit, also defines what constitutes a final "acceptance" of the goods. "The buyer is deemed to have accepted the goods when he intimates to the seller that he has accepted them, or when the goods have been delivered to him and he does any act in relation to them which is inconsistent with the ownership of the seller, or when, after a lapse of reasonable time, he retains the goods without intimating to the seller that he has rejected them."

The rights of unpaid sellers, as laid down in the fourth part, consist of a right to retain possession of the goods until payment (vendor's lien), and also of the right, in the event of the purchaser becoming insolvent, to stop the goods before they have actually been delivered to the purchaser (stoppage *in transitu*). The fifth part enumerates the seller's and buyer's remedies in case of breach of contract. The seller who has delivered the goods has an action for the price of the goods; if the goods have not been delivered, and the purchaser wrongfully neglects or refuses to accept them, the seller is entitled to damages, the measure of damages being, as a general rule, the difference between the contract price and the market price of the goods at the time fixed for delivery.

If the seller wrongfully neglects or refuses to deliver the goods to the buyer, the buyer is entitled to damages, the measure of damages being the same as in the case of an action against the buyer; but if the contract related to specific or ascertained goods, the court may, on the plaintiff's application, order SPECIFIC PERFORMANCE (*q.v.*) without giving the defendant the option of retaining the goods on payment of damages. The term "goods," as

defined by the act, includes all CHATTELS (*q.v.*) not being chattels real, choses in action, and money.

The Sale of Goods Act, besides being of direct interest in itself, is also remarkable as an excellent specimen of the art of codification, being the work of Mr. M. D. Chalmers, the author of the Bill of Exchange Act.

As to the sale of land, see VENDOR AND PURCHASER. E. S.

SALE AND PURCHASE. See VENDOR AND PURCHASER.

SALE AND RESALE. See INTEREST AND USURY.

SALMASIUS (CLAUDE DE SAUMAISE) (1588-1653) at Saumur en Auxois (Burgundy). He studied at Paris and Heidelberg, and became a lawyer practising before the parliament of Lyons in 1610, and succeeded Scaliger as Professor at the University of Leyden in 1632, where, with short intervals, he remained till his death in 1653. He died at Spa.

Salmasius received many honours from several governments of his time, and passed some time at the court of Christina of Sweden.

His writings on interest are the most important of his economic works, and on this subject he held many eager discussions with his contemporaries.

These writings are: *De usuris liber*, L.B., 1630; *De modo usurarum*, L.B., 1639; *Dissertatio de foenore Trapezetico, in 3 libros divisa*, L.B., 1640; *Diatriba de mutuo: non esse alienationem, adversus Coprianum quendam juris doctorem auctore Alexio a Massalia*, L.B., 1640; *Responsio ad calumniatorem Epistolam Cloppenborgii*, 1640; *Brevis confutatio notarum larvati cujusdam Theologi in excerpta dissertationis de trapezitis*, L.B.; *Disquisitio de mutuo qua probatur non esse alienationem auctore S.D.B.*, L.B., 1645.

Salmasius in these works defends the taking of interest, not only by explaining the passages in the Bible that seemingly forbid it, but also as a matter of principle. Interest, he argues, being a remuneration for the use of money, is nothing else but an indemnity to the person who lends it out; for, when using it himself, he could get fruits from it; though this might not be directly, nevertheless it would be obtained by buying productive objects. Public banks for advances, *montes*, he disapproved of, but argued that competition would lower the rate of interest.

[Böhm Bawerk, *Geschichte und Kritik der Kapitalzinstheorieen*, 1884, pp. 37, 40-45.]

A. F. V. L.

SALMOUR, RUGGERO G., count of (d. 1878), was born in Paris. He was a deputy of the sub-alpine parliament; secretary-general in the ministry of finance, 1855; senator of the kingdom of Italy, 1860.

Salmour wrote very able monographs on landed and agrarian credit, and its organisation in the Sardinian states and in Italy. He studied carefully the organisation and results of these institutions in other countries, and the conditions on which it might be advisable to adapt them to Italy.

[*Dell' ordinamento del credito fondiario negli Stati Sardi*, Turin, Chirio, 1853.—*Del credito fondiario e del credito agricolo in Francia ed in Italia*, Turin, Paravia, 1862]. U. R.

SALT DUTIES. See GABELLE; SALT, TAXES ON.

SALT, TAXES ON. Salt has long been a favourite object of taxation. In both republican and imperial Rome, as under the French monarchy (see GABELLE), it was regarded as a peculiarly lucrative source of revenue. Even at present most countries—Great Britain, where the salt duty was repealed in 1825, and the United States, are significant exceptions—impose heavy duties on it. Thus since 1806 France has had a salt tax, freed from the worst faults of the old GABELLE, yielding about £1,300,000 annually. The German empire obtains £2,250,000 from a combined custom and excise on salt. In Italy a state monopoly has been created. Both branches of the Austro-Hungarian empire follow the same method. But British India affords the most remarkable case of a high return being obtained by salt taxation. The different methods of state monopoly, excise duties and customs, are employed to suit the several provinces, and by these combined agencies a revenue of (1895-96) Rs. 80,760,000 (*i.e.* £5,384,000 at present exchange) is collected, placing salt next to the land tax as the second in productiveness of the branches of the revenue system.

The economic objections to this form of taxation are obvious, for (1) it falls on a necessary of life, and therefore, presses unduly on the poor, and more especially trenches on the MINIMUM OF SUBSISTENCE; while (2) it affects an important constituent of some manufactures, and seriously hinders their development.

For these reasons it was one of the first English taxes repealed in the fiscal reforms of the present century, and where other productive forms of revenue are available, the continuance of such a comparatively burdensome impost is undesirable.

The benefit to the English chemical and glass industries of the repeal was evident and considerable, not merely by the reduction of charge, but also by the decrease in the supervision required. For a poor population the pressure of what is equivalent to a poll-tax is heavily felt and often produces grave discontent. But it must be remembered that in many cases fiscal policy can be only a choice of evils; that the necessity for procuring revenue is too great to allow of any productive duty being abandoned; and that the salt tax may be the least inequitable and oppressive mode by which the

needful contributions of the poorer classes can be secured. Thus the attainment of the position at which this tax can with prudence be given up marks a stage in advance, as its necessary retention is an indication of national poverty and financial need.

[Adam Smith, *Wealth of Nations* (ed. Nicholson), p. 369.—P. Leroy-Beaulieu, *Science des Finances* 5th ed.), vol. i. pp. 653-661.] C. F. B.

SALTSILVER. One penny paid at the feast of St. Martin by the tenants of some manors, in the middle ages, in commutation of the service of carrying the lord's salt from the market to his larder.

[Cowel, *Interpreter.*] A. E. S.

SALVAGE.

Civil Salvage, p. 349; Military Salvage, p. 349; Insurance Salvage, p. 349.

SALVAGE. There are three kinds of salvage: (1) civil salvage; (2) military salvage; and (3) insurance salvage.

1. *Civil Salvage.*—A service which saves or helps to save maritime property, *e.g.* a vessel, its apparel, cargo, or wreck, or the lives of persons belonging to any vessel when in danger at sea, or on the shore, or in tidal waters; such service being voluntary and not due to legal obligation, self-preservation, or official duty. The word salvage is often used to denote the reward as well as the service rendered. The right to salvage may arise out of an actual contract; but it does not necessarily do so. "It is a presumption of law, arising out of the fact that property has been saved, that the owner of the property, who has had the benefit of it, should make remuneration to those who have conferred the benefit upon him, notwithstanding that he has not entered into any contract on the subject," Sir J. Hannen, in the case of the *Five Steel Barges*, 15 P.D., at p. 146. Sir Robert Wiseman, a judge of the admiralty court, in his *Law of Laws*, London, 1657, refers the origin of salvage to the Roman law doctrine of *negotiorum gestio* (*Dig.*, bk. iii. tit. 5), which gave an action to a person who had acted for another without any mandate (see Hunter's *Roman Law*, p. 661). Sir Christopher Robinson, in the *Calypso*, 2 Hagg., 209, adopted the same view, and showed that both military and civil salvage "resolved themselves into the equity of rewarding spontaneous services rendered in the protection of the lives and property of others." The reward is not, however, measured by the benefit derived by the shipowner, public policy is also taken into account, and to this extent the Roman law doctrine has been considerably extended. "Salvage is governed by a due regard to the benefit received, combined with a just regard for the general interest of ships and marine commerce," Dr. Lushington, *The Fusilier*, Br. and Lush., at p. 347. On rendering the services the salvor acquires a lien in respect of his reward, and such lien takes precedence previously attaching to the subject matter. The lien can be enforced in a court of admiralty. The amount of the reward is within the discretion of the court, and depends on value of the property saved, the value of the property employed in the salvage service, the danger involved and the skill shown, the expense or delay incurred, and all other circumstances that appear to be material.

[Sir W. R. Kennedy, *The Law of Civil Salvage*, London, 1891.]

2. *Prize or Military Salvage.*—When a ship captured by the enemy is retaken it is restored to the owner on his paying the captor a reward for the expense and trouble of the recapture. This principle was recognised by the *Consolato del Mare*, and is discussed in detail by Bynkershoek, *Quaestiones Juris Publici*, l. i., cc. iv. v. The chief maritime states have embodied the principle in their legislation. In England the Prize Act 1864, 27 & 28 Vict. c. 25, provides that the owner is to pay as prize salvage a sum to be decreed by a prize court, not exceeding one-eighth the value of the prize; but where special difficulty or danger is involved, the salvage may exceed one-eighth but not one-fourth.

In the United States, the Act of Congress of the 3rd March 1800, c. 14, fixed the amount of salvage at one-eighth of the value if the recapture was by a public ship, and one-sixth if by a private ship.

[For the English and United States practice see Story's *Notes on the Principles and Practice of Prize Courts*, edited by Pratt, London, 1854.

Phillimore's *Commentaries on International Law*, vol. iii., contains a summary of the principles followed by the chief European states. For France, see Pistoye et Duverdy, *Traité des Prises Maritimes*, Paris, 1855. For other European states, see De Marten's *Essai sur les Armateurs*, translated by Horne, London, 1881.]

3. *Insurance Salvage.*—The word salvage is applied to denote the residue of goods that remain unburned or partially burned after a fire, and in respect of which the insurance has to pay the sum insured. When a loss occurs by a fire, and goods are materially injured, it is usual to ascertain the amount of damage by a sale by auction, with the consent and for the benefit of all parties. The difference between the value of the goods at the time of the fire and the proceeds of the sale is then made good by the insurers.

[Bunyon, *Law of Fire Insurance*, London, 1875.] J. E. C. M.

SAMPLE. A portion of a large quantity of goods tendered or shown as evidence of the quality of the whole. In the case of a sale by sample there is an implied warranty that the

bulk will correspond with the sample in quality and condition.

[Chalmers on the *Sale of Goods*, London, 1894.]

J. E. C. M.

SAMPLING (CONDITIONING) is the testing commodities offered for sale. Sample is an abbreviation of *ensample*, a specimen. It is common in modern industry for travellers to go round to likely customers, carrying with them samples of the merchandise they have for disposal. This class of dealers, formerly called bag-men, now commercial travellers, has much increased of late, owing to more urgent competition and increased facilities of locomotion. In other instances sampling is performed at the places where the goods are actually made or sold.

R. W. C. T.

SANCTIS, M. A. See DE SANCTIS.

SANCTUARY, ECONOMIC ASPECTS OF. The privilege of sanctuary, *i.e.* of securing protection by taking refuge within a church or other consecrated ground, and sometimes in other places also, is common to continental as well as to English law, and goes back to remote periods. In England the practice was in vogue in A.S. times. Ina, Alfred, Athelstan, all recognised the temporary immunity thus afforded, for the privilege did not remit but lessened the severity of the penalty and excluded death or mutilation. In the so-called laws of Edward the Confessor, it is for the first time connected with that essentially English institution "abjuration" so admirably described by M. Réville ("l'abjuratio regni" in *Revue historique*, l. pp. 1-42). It is there mentioned in connection with thieves, but during the 12th century the usage seems to have extended to criminals also; and in the 13th we get a clear view of the working of the system. The fugitive having made a confession of guilt before the coroner, might take an oath to abjure the kingdom within a limited period, usually forty days, and was helped by officials to carry out this purpose. But if he failed to take the oath, the sanctuary might, after forty days, be surrounded, and the victim, if unable to effect his escape, would be slowly starved into surrender. In the earlier period it is not easy to see what may have been the economic effects of this custom, and the recorded cases are fewer than might be expected (Réville, p. 23). But from the 14th century onwards the privilege of sanctuary was abused by debtors of all sorts, and frequent complaints are met with in the rolls of parliament on the subject. Thus in 1347 the citizens of London petitioned for redress against a debtor who, by fleeing into sanctuary, defrauded his creditors (Rolls, ii. 187 b); in 1376 it was decided that enfeoffment to friends followed by flight on the part of debtors to sanctuary, should be void as against creditors, if it could be shown that the debtor had profited (Rolls, ii. 369 a). The abuse was so grave that in response to a petition the opinion of justices and doctors of both laws was taken in 1387 as to the limits of the privilege. Their verdict was that it only covered cases of life and limb (Rolls, iii. 37 b, 51 a). Wiclif laid a memorial before the parliament of Gloucester in 1378, which may have been the formal opinion presented by the experts. The circumstances are described in his *Tractatus de ecclesia* (c. vii. *et seq.*), from which some idea of the system may be obtained. This he vehemently denounces, and notes that the extension of the privilege to debtors was a recent innovation (*Tractatus*, p. 243). It was not, however, abolished, but in 1379 protection was given against debtors who having made "feigned" conveyances, fled to sanctuary; such were henceforth to appear, on proclamation, to the suits of their creditors, or be liable to an execution on their lands and goods (2 Ric. II. st. ii. § 3). Complaints of such conveyances continued (Rolls, vi. 110 a), and although, in 1487, Innocent VIII. by bull took away the privilege from fraudulent debtors, this was an ineffective measure, and it was found necessary early in Elizabeth's reign (1558-1603) to attach certain conditions to the privilege at Westminster with a view to preventing the admission of such debtors (Stow, *Survey*, ii. bk. vi. p. 39).

Early in the 15th century the Commons complained that apprentices and servants living in London, or resorting thither, fled to the sanctuary of St. Martin's-le-Grand with their masters' goods and lived safely; also that the inhabitants of the sanctuary purchased from citizens, and had conveyed to them through their friends, goods for which payment was procurable; and the sanctuary was described as harbouring murderers, traitors, clippers of coin, thieves, and others who hid by day and went forth to do evil deeds by night (Rolls, iii. 504 a). To check the grave disorders at St. Martin's, an ordinance was passed in 1457 which somewhat limited the freedom of the inhabitants, and excluded pickers of locks, forgers, and counterfeiters of various commodities from its privileges, while artificers were forbidden to work on Sunday or feast days (Stow, i. bk. iii. p. 104). Merchant aliens apparently sometimes obtained merchandise, and fled with it into sanctuary without making payment; this led to an enactment that ready money alone should be taken from aliens (Rolls, iv. 360 b).

The sanctuary system, though maintained, was gradually modified by the Tudors. New openings for adventurous spirits, easier means of communication, more definite knowledge of distant lands—all these contributed to make voluntary exile a not unpleasant way of evading justice, and many abjured the realm. This was felt to be a serious danger from several points of view. It led not only to a diminu-

tion of the able-bodied population available as skilled mariners or soldiers, and thus lessened the defensive force of the realm, but it provided the enemies of England with apt instructors in the practice of archery, who moreover divulged secrets of considerable importance. It was therefore enacted that, in future, men fleeing to sanctuary for murder, robbery, or felony—such offences alone are mentioned in the statute—should, after confession and abjuration, proceed to some sanctuary within the kingdom and remain there to the end of their lives, but without being under any special discipline (22 Henry VIII. c. 14). The lightness of the punishment proving an incentive to crime, irksome rules for the daily discipline of sanctuary men, certain limitations on their independence, both enforced by the authority given to "governors of sanctuaries" of whom we hear for the first time, were adopted in 1535 (27 Henry VIII. c. 19). Even this more stringent supervision did not check the evil; in 1540 the privilege of sanctuary was limited to churches, cemeteries, and a few definite places, and certain only of the offences punishable with death received immunity (32 Henry VIII. c. 12). The restrictions were practically repealed by Edward VI. with the elaboration of milder punishments. With the increased ability of the state to deal with offenders against justice all need for a system which had its use in times when the central authority was more or less powerless to protect individuals had passed away, and during the reign of James I. all statutes affecting sanctuaries were repealed (1 Jac. I. c. 25; 21 Jac. I. c. 28). Certain of the notorious London sanctuaries long remained the haunt of debtors, and successfully evaded the law; effective legislation did not touch them until the 18th century (8 & 9 Will. III. c. 27, § 15; 9 Geo. I. i. c. 28, § 1; 11 Geo. I. c. 22, § 1).

[For the privilege of sanctuary, see Shakespeare. Rich. III.—*Rolls of Parliament* (Record Commission).—Réville, A., "L'abjuratio regni" in *Revue Historique*, l. (1892), a most valuable contribution. —Wiclif, J., *Tractatus de ecclesia*, ed. J. Loserth (1886). —Bulmerincq, A. von, *Das Asylrecht* (1853).—Stow, J., *Survey of London*, ed. J. Strypey (1720)]. E. A. M.

SANDELIN, PIETER ALEXANDER (1777-1861), a Belgian judge. At the time of the Belgian revolution (1830) his house at Bruges was burnt by the mob on account of his fidelity to the Orange dynasty. He narrowly escaped with his life, fled to Holland, and was made, in 1844, a councillor of state of the kingdom of the Netherlands.

He wrote on industry and the patent law, *Considérations sur la situation actuelle de l'industrie, du commerce, et de la législation des brevets d'invention*, 1846; also a general syllabus of economics, *Répertoire général d'Économie Politique ancienne et moderne*, 6 vols. Hague, 1846-48, comprising amongst other things, reprints from leading periodicals and reviews.

[Van der Aa, *Biograaphisch Woordenboek*, Haarlem, 1874]. E. CA.

SANDER (or SANDERS), NICHOLAS, D.D., (about 1527-1582), was a Roman Catholic writer on controversial theology.

He wrote, *A briefe Treatise of Usurie*, 1568, published at Louvain. His views are those general in his age. Starting from the standpoint that a loan is a free gift for a limited time, he condemns all loans made in the expectation of profit; and assuming that no man will lend to a richer than himself, he argues against usury as oppressive to the poor—only the poor requiring and receiving loans. Usury in fact is a "gentlemanly theft." He draws a distinction between the loan of (*a*) property which can be returned, *e.g.* a horse, and that of (*b*) property, *e.g.* food, immediately consumed by use so that only something similar can be returned. In the former the loss, if any, falls on the lender, in the latter on the borrower. In the first class hiring-out for profit is regarded as lawful, but money, being classed with food because the identical coins will not be returned, must not be put out at interest. Shifting his ground, he next argues that as it is not usual to expect more goods to be returned than were lent (forgetting the hire of a horse for profit), so money, which merely represents goods, is barren, and cannot really produce interest. Yet in one place he allows business profits to be legitimate; and though he does not dwell on the consideration that men will not lend without interest because repayment of the principal is uncertain, he yet suggests that those who are not sure of repayment need not lend.

The confusion of his ideas is shown by the fact that, in several passages, rent is considered as equivalent to interest, and from first to last his arguments rest on the assumption that loans were instituted for the good of the borrower, and on the inference that they ought not to be turned to the good of the lender.

[Cunningham, *Industry and Commerce, Modern Times*, p. 83.—*Dictionary of National Biography*.] E. G. P.

SANDYS, THOMAS. See INTERLOPERS.

SAN SALVATORE (Di), PADRE ANTONIO—one of the regular clergy (17th century), wrote a treatise on exchanges, in answer to the critique on *cambi colla rincorsa*, by Padre Giustiniani. The latter maintained that these exchanges (see GIUSTINIANI) were not lawful, according to the doctrines of canonists, because they were not real, but fictitious, exchanges, serving to conceal usury. San Salvatore, being asked by merchants to give an opinion on the subject, supports the lawfulness of this class of transaction, observing that it is possible to have banking-houses in several places which can be relied on, and maintaining that, the different legal points involved in the transaction being lawful, it must as a whole be lawful. All this is merely a play upon words, a quibble, which was attempted to justify a transaction

that could not in reality be justified according to the doctrines of the canonists; a quibble employed to resist a doctrine which no longer corresponded to the requirements of the day.

Trattato della ricorsa e continuationi dei cambii fatte a se' stesso, e di quei che si fanno da fiera a fiera, Milan, 1623.

[Gobbi, *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, Hoepli, 1889.] U. R.

SANSOVINO, FRANCESCO (1521-1586), was the son of the celebrated Italian sculptor and architect.

In his book *Del governo dei regni e delle repubbliche così antiche come moderne* (Venice, 1561), he describes the administration of ancient and contemporary states, and may, in some respects, be considered as one of the forefathers of statistics. He mentions with praise More's *Utopia*, "an agreeable fiction written in order to teach men how to live honestly"; he also describes the foundation and working of the Bank of St. George in Genoa. His *Concetti Politici* (Venice, 1578) refer to wealth, taxation, dearths, etc.

[U. Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, pp. 12 and 65 (Milan, 1889).] E. Ca.

SARCHIANI, GIUSEPPE (1746-1835), was born at San Cassiano in Tuscany. He was one of the most active and able co-operators in the extensive and liberal economic reforms made by Pietro Leopoldo I., grand duke of Tuscany (1765-1790). Sarchiani was director of the diplomatic archives in Florence and secretary of the academy of the Georgofili.

With the view to convince the public of the usefulness of freedom in trade and labour, and to prepare them for the abolition of corporations (abolished in Tuscany, 1770), Sarchiani, by order of the minister Tavanti, translated a pamphlet by Abbé Coyer (a species of satirical romance showing the absurdities of corporate regulations), he then wrote several anonymous articles illustrating the advantages of liberty and free competition, and the defects of the corporations. In his treatise on commerce he gives the history of Tuscan arts and crafts. His articles on the gilds of the goldsmiths and the silversmiths, of the shoemakers and the leather-makers, are full of spirit and advocate the abolition of all privileges.

Sarchiani, like other Tuscan authors of the day, accepts the doctrines of the PHYSIOCRATS, whose influence on the Tuscan statesmen, who carried out the Leopoldine reforms, is undeniable; his work on public taxation contains a clear and detailed explanation of the doctrine of the physiocrats on the subject of the single tax. Sarchiani supports the claims of the physiocrats to the honour of establishing in theory the basis of a true and fair system of taxation, advocating, with them, a single tax on land, criticising all other forms of taxation, and advising gradual reform in taxation as desired by the physiocrats.

Ragionamento sul commercio, etc., Florence, 1781.—*Memorie economico-politiche*, Florence, 1783.—*Intorno al sistema delle pubbliche imposizioni*, Florence (Accademia dei Georgofili), 1796.

[Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Alberti, *Le corporazioni d' arti e mestieri, e la libertà del commercio, etc.*, Milan Hoepli, 1888.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881]. U. R.

SARPLER (OF WOOL). See MEASURES AND WEIGHTS.

SARTORIUS, GEORG FRIEDRICH (1766-1828), was born at Cassel, and became in 1783 a student of theology at Göttingen, but soon directed himself to the study of history. From 1792 he lectured as *privat-docent* on the history of the 18th century and on politics. In 1797 he became extraordinary, and in 1802, ordinary professor of philosophy in his university. He succeeded SCHLÖZER in 1814 as professor of politics, and at Goethe's suggestion was employed by the grand duke Karl August of Weimar as a sort of confidential adviser of the representatives whom he sent to the congress of Vienna. From 1815 to 1817 he was a member of the Hanoverian assembly of estates, and thenceforward devoted himself exclusively to his academic labours. In 1827, in consideration of his scientific services, he was ennobled by the king of Bavaria as Baron of Waltershausen, to enable him to hold a noble estate which he had purchased. He died after thirty-one years of activity as a teacher in the university of Göttingen.

Sartorius was a man of real eminence, and did much for the education of the people of Germany. That he exercised a powerful and healthy influence on the young men of promise with whom he was in contact, is testified alike by men so different as Heinrich Heine and J. F. Böhmer. His importance in the history of political economy lies in the fact that he was the first to introduce the teaching of Adam Smith at a German university. "Convinced that the doctrine was true, he felt it his duty," he says, "to contribute to its diffusion." He published accordingly a series of extracts from the *Wealth of Nations* for use in academic lectures. His most important original work on economics is his *Abhandlungen die Elemente des National-Reichthums und die Staatswirthschaft betreffend*, 1806, in which, whilst adopting Smith's views in the main, he differs from him on several points; where he diverges from him he has been followed by the great majority of later German economists. Acknowledging free-trade as the general rule, he admits exceptions, and holds that the government must interfere in economic life to prevent private interest from compromising the public weal. Sartorius saw the value of historical studies in relation to politics, and, in particular, to economic politics. He was himself the author of three approved histories—of *The German Peasant War*, 1795; of *The Hanseatic League*, 1802-1808; and of *The Ostrogoths in Italy*; this last won a prize offered by the French institute, 1811. His widow, a gifted and highly-cultivated woman, wrote

memorials of him—*Zum Andenken an G. Sartorius*, which have been reprinted with additions by his son, also known as an economist, and who, after having filled a chair at Zürich, became a professor in the university of Strasburg.

[Frensdorff in *Allg. Deutsche Biogr.*—Schmidt in *Handb. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 615]. J. K. I.

SASINE (SCOTS LAW). In Scotland, under the forms of the feudal system, the root idea of land transfer is actual delivery, analogous to the English livery of seisin (see LIVERY). In early times this was carried out by the appearance of the granter and the grantee upon the lands: the granter gave the grantee "heritable state (estate) and sasine" by a ceremony of handing over to him earth and stone or other appropriate symbol. The grantee was then said to be infeft in the lands; and the transfer, or the ceremony, was called infeftment (see FEOFFMENT). It soon became the practice for a notary to accompany the parties and draw up an authenticated narrative of the facts, to be retained by the grantee, and to serve him as written evidence of the transaction; and this was called an "instrument of sasine." Subsidiary complexities soon arose through the growth of a custom under which the granter and grantee did not appear personally on the lands, but sent their representatives. Then a deed had to be drawn up, specifying the grant and directing the granter's representative, or bailie, to give sasine on behalf of the granter to the grantee's attorney. Between these representatives the symbolic ceremony had to be gone through, and the notary again drew up his instrument of sasine; but now he had better material at hand—the granter's written deed—than he had had when all proceedings were oral; and he was therefore able to make his instrument of sasine precise, and to give a clear account of any limitations or conditions or reservations to which the grant was subject. Thus the notarial instrument of sasine became a *means* of proving title to redeemable rights (*mortgages*) and limited titles as well as absolute legal titles. As *time* went on, it became the custom for the granter to draw up a formal deed of grant or DISPOSITION, in the course of which he directed his representative to give sasine as before, but left the name of his representative blank: this deed was handed to the purchaser, who had thereafter to appoint some one to act as the vendor's *representative and give sasine to his*, the purchaser's, own attorney. We may now look at the purchaser's right in three successive stages: (*a*) when he had made a contract with the owner to give him a grant, at which time he had a personal right, founded on contract, as against the owner, but had as yet no right in the land, his right being only to lead an adjudication in implement, that is, to go to the court to help him in an action against the owner, by giving him the land in execution, which would be done in terms of the contract if no third party had acquired a right in the meantime; (*b*) when he had received his deed of grant or "disposition" but had *not* yet gone through the ceremony of taking sasine, at which time he had a right, but a merely personal right, in the lands, liable to be defeated by some other grantee getting sasine before him; and (*c*) when he had taken sasine of the land on the land, at which time his right had become a real right, properly feudalised by infeftment in the lands themselves, and he was the lawful owner of the lands. In the first of these stages he had to go back to his vendor to receive his deed of grant; in the second he had got it, and it was his own fault if he did not go on and complete his title, for the whole matter was in his own hands; and in the third he was fully vested in the rights which had been conveyed to him. The same principles of law still apply under the altered formalities of the present day. The conclusive document was then the instrument of sasine, which showed that the third stage had been reached; and this was the title-deed to the lands. This scheme of transfer was simple though somewhat cumbrous, but was found to be open to abuse in respect that there might be fraudulent concealment of latent rights affecting the lands, for a man might show an intending purchaser his instrument of sasine and yet fail to disclose the existence of reversionary rights or mortgages. Therefore in 1617 an act was passed by the Scots parliament enacting that all instruments of sasine, and generally all documents of title to rights affecting land, were to be registered within sixty days (see LAND REGISTRATION), and that unless registered they were to be ignored by the courts so far as they might be prejudicial to third parties acquiring just and lawful rights. This act was not completely obeyed, and in 1693 and 1696 other acts were passed under which all sasines were declared preferable according to the date and priority of registration, and no sasine or other writ (*i.e.* deed) affecting land was to be of force against any but the granter and his heirs unless duly booked in the register, so that if not booked within sixty days they became mere nullities as against third parties. After these acts there were therefore five steps: (1) the bargain and the obligation to convey; (2) the delivery of the deed of grant to the purchaser; (3) the purchaser securing infeftment by taking sasine of the lands; (4) the drawing up of a notarial instrument of sasine; and (5) the purchaser hastening to get this instrument of sasine registered so as to secure priority and prevent his sasine being reduced to a nullity as against third parties by the lapse of the sixty days. Thus things went on until 1845, in which year

the ceremony of taking sasine was rendered unnecessary and the sixty days limit was extended to the lifetime of the granter, while registration of the instrument of sasine was made equivalent to infeftment. The steps in the transfer were therefore reduced to (1), (2), (4), and (5), above. In 1858 a further simplification was introduced by abolishing step (4), and from that year onwards in place of step (5) the deed of grant or disposition was to be registered directly. All traces of the ceremony of taking sasine on the lands thus disappeared, and registration is now the effective mode of completing title to land or of affecting land with any securities over it. In practice the purchaser sends his conveyance forthwith to get it registered as soon as it is executed. There is nothing to be gained by not doing so, and he may lose his priority if he neglects to do so. The only exception to the rule that priority of registration confers priority of right arises in cases where the holder of the title has acted in bad faith in taking a title, as for example where the purchaser has bought land which he knew his vendor, a trustee, had no right to sell to him; in such a case the court will annul the conveyance, and its judgment will be entered on the register. But the rule is adhered to with some pertinacity: mere knowledge that another person has acquired a right to get a CONVEYANCE is not sufficient to overcome it; following up one's legal rights, even against a blundered sasine or registration, is not bad faith; and generally a purchaser in good faith is protected and may rely on the registers without making further enquiry, for unrecorded conveyances, including mortgages, are absolute nullities as against him and his representatives, and the rule of priority of right being conferred by priority of registration, operates to keep him safe.

[See Montgomerie Bell's *Conveyancing.*—Menzies's *Conveyancing.*—Begg's *Conveyancing Code.*—Duff on *Feudal Conveyancing.*] A. D.

SASSETTI, FILIPPO (1540-1588), a Florentine merchant who wrote a treatise on commerce between Tuscany and the Levant, showing briefly and clearly the advantages of foreign trade and the influence on it of freedom from restriction. He analysed minutely the advantages which merchants obtained from trade with the east, and advocated that the state should remove every obstacle to this trade and favour its development in various ways. Its importance was well understood by him, and greatly appreciated throughout an active commercial life, and in the long journeys which he made to the remotest regions of the east.

Sassetti proposed to abolish custom duties, or at least to diminish them greatly.

The actual scientific importance of the defence in theory of free exchange which Sassetti made in times when restrictions in trade were prevalent, is not so great as it appears to be, because similar ideas were based by him and other writers of that period on the interests of the commercial classes alone, and also that he discussed only trade with the east, that is to say, trade in products which could not compete with the industries of his own country. Sassetti said plainly that the greatest benefit was connected with the export trade, which, by favouring the arts, increases wealth; he cannot therefore be fairly classed among the precursors of the modern theory of free trade.

Ragionamento sopra il commercio fra i Toscani e i Levantini (written in 1577; published in the *Lettere edite ed inedite del Sassetti*, Florence, 1855).

[See Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, Milan, 1884.—Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893]. U. R.

SATIETY PRICE. The fact that human beings have varied tastes becomes of considerable importance in putting a limit to their consumption of individual commodities. A point may be reached where further reduction of price would result, not in additional purchases of the same commodity, but of a transference of some part of the purchasing power to some other object. Such a point, where further reduction of price brings no increase of demand, is the satiety price for the commodity in question to the individual considered. If a whole community could reach such a condition in regard to the commodity, what has been stated of the individual would be true of the community. It is difficult to conceive, for most commodities in general use, of any price above zero, which would be a satiety price to the whole of a nation such as those of Western Europe. In special cases, however, the conception is possible, and in reference to individuals, represents a sufficiently common experience (cp. LAWS OF POL. ECON.; LAW OF SATIABLE WANTS). A. W. F.

SATURATE. In any case where, for an individual or for a community, the price of any commodity has reached the point defined as the SATIETY PRICE (*q.v.*), the demand of that individual or community for the commodity in question may be said to be saturated. A. W. F.

SAUNDERS, N. See SANDER, N.

SAUNDERS, ROBERT (end of 18th century):—

Author of two pamphlets, *Observations on the Present State and Influence of the Poor Laws, founded on Experience by Robert Saunders, Esq.*, 1799. Preface 15 pp., 173 pp; and *Abstract of Observations on the Poor Laws with a Reply to the Remarks of the Rev. James Nasmith, D.D., by Robert Saunders, Esq.*, 1802, preface 4 pp. and 43 pp.

The author was interested in promoting a school of industry, and in connection therewith became, in 1796, an overseer of the parish of Lewisham.

The office of overseer, he says, is an unworkable medley of high and uncontrolled responsibility and menial duties, such as "no person of respectability and independence can accept to execute *literally*." The sweets of office reconcile the less desirable sort of overseer to his work. He suggests as remedies the separation of the assessment and collection of the rate from the administration of relief, and an effective system of audit. The miscarriage of Pitt's proposals for remodelling the poor law convince him that parliament is unfit to legislate in detail. "If there be a great national subject . . . that requires the superintendence and controul of a board of commissioners more than any other . . ." it is the poor law. He prefers a "supreme board in the metropolis" to county or local central control proposed by Pitt, and embodied in Gilbert's Act, though he quotes these as precedents. His argument thus anticipates the commissioners' report of 1834, and the suggestion of central control is apparently original. In 1834 his pamphlets seem to have been forgotten, but their prescience and sagacity deserve a brief record. The author dates his pamphlets from South End, Kent, but no other particulars regarding him have been recovered. T. M.

SAVARY FAMILY.—SAVARY, JACQUES, the father (1622-1690), born at Doué (Maine-et-Loire), died at Paris. He published *Le parfait négociant ou instruction générale pour ce que regarde le commerce des marchandises de France et des pays étrangers* (1st ed., 1675; last ed. 2 vols. 4to, 1800), which long had a well-deserved popularity in the business world. He also helped to draw up the celebrated trade decree of 1673, and later the model of the French commercial code (see CODE NAPOLÉON).

JACQUES SAVARY DES BRULONS (1657-1716), the youngest of his sons, followed his father's example and training, and also devoted himself to the science of trade. Appointed in 1686 inspector-general of customs, he formed the idea of writing his *Dictionnaire universel de commerce, d'histoire naturelle, d'arts et métiers* which death prevented him from finishing.

THE ABBÉ LOUIS PHILÉMON SAVARY, his elder brother (1654-1727), finished this work and published it in two volumes, folio, in 1723; the third, a supplement, appeared in 1730. This work, with some alterations and numerous supplementary remarks, went through several editions, in 1726-32 it appeared in 4 vols. 4to, in 1748-50, 3 vols. folio, and finally in 1759 in 5 vols. folio.[1] MORELLET, who should have known what labour was involved, since he had worked twenty years without finishing a similar work, reproaches him with errors in the principles, and of only attending to technical details. At all events, it had the merit of being the first of its kind published in France. It was valued on account of the facts, especially in the later editions, which were contributed by men holding the highest places as manufacturers, traders, and government-officials. A. C. f.

[1] *A Dissertation on the Plan, Use, and Importance of the Universal Dictionary of Trade and Commerce, translated from the French of the late Monsieur Savary*, was published in London 1749; see also POSTLETHWAYT, ROLT, and M'CULLOCH, Preface to 1st ed. of Commercial Dict.

SAVIGNY, FRIEDRICH CARL VON (1779-1861), was a descendant of well-to-do Protestant immigrants from Lorraine, a native of Frankfort on the Maine, a student at Marburg and Göttingen, professor of Roman law at Berlin (1810-42), member of the Prussian council (1817), and of the appeal court for Rhenish Prussia (1819-42), and Prussian minister for the revision of laws (1842-48).

He wrote (1) *Das Recht des Besitzes*, 1803, translated by Perry, 1848, as *Treatise on Possession*, 1848, in which he first crossed this *pons asinorum* of Roman law; (2) *Ueber den Beruf unserer Zeit für Gesetzgebung und Rechtswissenschaft*, 1814, translated by Hayward, 1831, as *On the Vocation of our Age for Legislation and Jurisprudence*, in which he likened codifiers to those who, in their haste, set up a golden calf in the place of the yet invisible tablets of the law; (3) *Geschichte des römischen Rechts im Mittelalter*, 6 vols., 1815-31, vol. i. translated by Cathcart, 1829, as *History of the Roman Law during the Middle Ages*, in which he put the relation of mediæval to ancient and modern history in its true light for the first time; (4) *System des heutigen römischen Rechts*, in seven books, bks. i.-iii., 1840-51; bk. v., called *Obligationenrecht*, 1851-53, and the rest unwritten; bk. i., translated by Holloway, 1867; bk. ii., by Rattigan, 1884; bk. iii., by Guthrie, 1869, 1880; "modern Roman law" meant such elements of Roman law as were then, either in their pure or in a modified form, the common law of Germany and other states; (5) helped by Eichhorn and Göschen, he founded the *Zeitschrift für geschichtliche Rechtswissenschaft*, 1815, his preface to which, denouncing unhistorical jurists and claiming to found a "historical school" of jurisprudence, is epoch-making. His contributions to this and other periodicals are contained in his *Vermischte Schriften*, 5 vols., 1850. His ideas are the same as those of his contemporaries at Berlin. Thus Schleiermacher too tried to form schools of co-operative thought, and the Hegelian system, in which "the history of philosophy became for the first time an integral part of the system of philosophy . . . was exactly the right philosophy for the historical school of law" (Erdmann, *Hist. of Philosophy*, translated by Muirhead, vol. iii. p. 328). When he refers to language he recalls W. v. Humboldt, and his historical sense reflects that of Niebuhr. His central thesis is that law does not merely consist of laws any more than language does of writings; and you will not find its essence either in a remote past or a remote future or in the present, but in the character of a nation, *Volks-Geist*, as revealed in its complete legal history. Invention, conquest, contract, individual whim, *Willkür*, and blind custom may modify but cannot create nor develop law; for it is a spontaneous growth of the entirety, *Gesammtheit*, of the nation. With him *Willkür* stands for the false, *Gesammtheit* for the true. The "natural right" of ignorant dreamers, the didactics

of ill-digested pedantry, the attempt of a half-educated present to dictate to the future by means of codes are resented as a sin against *Gesammtheit*, and although "customary law" most vividly illustrates *Gesammtheit*, he hates the word because it suggests an origin in *Willkür*, and after that *inertia*.

Critics of Savigny forget that he only used philosophic theory sufficiently for his purpose, he did not formulate a philosophy. Von Ihering calls Savigny romantic because he said that law grows by "the silent working of inner forces," whereas fighting made and keeps it alive (*Battle for Right*, translated by Ashworth, 1883). C. Menger says Savigny looked on money as inexplicable and independent of individual volition (*Obl.* i. 406), instead of as the *tertium quid* resulting from the different things which A and B do and intend to do (*Untersuchungen*, p. 173). Both criticisms are right in so far as they supplement Savigny, for Savigny never investigated the exact process by which many individual efforts produce one collective result, although he invariably traced the latter to the former. The accusation that he identified the systematisation and history of law is borne out by one passage (*V. S.*, vol. v. p. 2) and refuted by another (*S. des h. r. R.* p. xiii.), and his greatest work is called "system," his second greatest "history"; not but what the systematisation and history of thought are always very nearly akin. Members of the historical school are often denounced for holding that whatever is is right, and for minimising the sphere of legislative innovation; but permanence is one test of right. How far this accusation hits Savigny it is difficult to say, as his greatest work is expressly confined to private law, and therefore his principle that legislation must adjust law to "changed morals, views, and needs," found little application.

He rarely went outside this bare minimum of indispensable philosophy, or jurisprudence, or legal history, but there are (at least) two exceptions. In one place he summarised Hufeland, Helferich, and Hoffman's exposition of the value of money, and inferred that the market value of money is the best standard for deferred payments (*Obl.*, i. p. 404 *et seq.*). In another he described progress thus: "bei steigender Cultur nämlich sondern sich alle Thätigkeiten des Volkes immer mehr, und was sonst gemeinschaftlich betrieben wurde, fällt jetzt einzelnen Ständen anheim," etc. (*Ueber den Beruf*, p. 12). This may be represented in H. Spencer's language, "as civilisation advances all the national activities are differentiated more and more, and pursuits which were formerly homogeneous are now heterogeneous." Savigny adds that the link between the pursuit which has now become technical, and the entirety of the nation, is henceforth political.

[A. F. Rudorff, *F. C. von Savigny, Erinnerung an sein Wesen und Wirken* (1862). Translations have made the *System* say that social growth is "independent of individual will" (Holloway, p. 14), have misled the *Edinburgh Review* (*Philological Museum*, vol. i. pp. 196-200), and have made Savigny make mistakes about mediæval money (*Atti e memorie della r. deputazione di storia patria* (1894), pp. 140, 295), so that they must be used with care]. J. D. R.

SAVING, PRODUCTIVE AND UNPRODUCTIVE. See PRODUCTIVE, THE TERMS.

SAVING in the case of an isolated individual, or in the case of a communistic society, obviously means the action of producing in a given period of time a surplus of goods over and above those consumed during that period. Thus Robinson Crusoe "saved," when in addition to providing for his daily needs he managed to build himself a boat. The boat was the addition to his capital which he "saved." A communistic society, too, would "save" when it added to its capital any useful material object, such as a house, a mill, or a ship. In a community recognising private property and practising exchange, the process of saving is just the same. The savings of any particular period appear at the end of that period in the form of additions made during it to the capital or stock of useful material objects in existence. The savings of the United Kingdom, for example, since 1830, include the whole of the railways therein. This is clear enough as regards the community in general, and the fact that the individual saver reckons his "savings" in money which he "invests," must not induce us to believe with Adam SMITH, MALTHUS, and J. S. MILL, that what is saved is spent or consumed. The individual who has an income of £1000 a year has the power of annually consuming commodities and services to the value of £1000. If he "saves £500" it simply means that he decides that he will take £500 worth of goods, not in the form of commodities for his personal consumption, but in some form, say, for example, a cycle factory or telephone wires, in which they will constitute an addition to his capital and that of the community.

[The old view will be found expressed in Adam Smith, *Wealth of Nations*, bk. ii. ch.iii.—Malthus, *Political Economy*, 1820, pp. 31, 32.—J. S. Mill, *Principles*, bk. i. ch. v. §§ 4-6. It is criticised in Cannan, *Production and Distribution*, 1893, pp. 71-74, 100, 103-105, and shown to be based on a confusion between the income of the saver which is saved and not consumed (being taken in the form of non-consumable commodities) and the wages or income of the persons employed to produce the additions to the capital. See Irving Fisher, "What is Capital?" and "Senses of Capital," in *Economic Journal*, Dec. 1896, June 1897. A good idea of what the actual concrete additions to the capital of a modern community really consist of may be obtained from Giffen, *Growth of Capital*, 1889]. E. C.

SAVINGS BANKS. See BANKING.

SAY, HORACE EMILE (1794-1860), eldest son of J. B. SAY (*q.v.*). He spent several years of his youth in business in the Brazils, and founded in 1818 in Paris a commission firm for trade with South America. He was successively a member of the *Tribunal de Commerce* and of the municipality of Paris, and was for some time a councillor of state (1849-

1851). In 1857 he was elected a member of the *Académie des Sciences morales et politiques*,

In 1830 he wrote his *Histoire des relations commerciales entre la France et le Brésil*, but afterwards devoted himself to the study of the administration and of the industrial interests of Paris, publishing, in 1846, his *Études sur l'administration de la ville de Paris et du département de la Seine*, and a few years later the *Statistique de l'industrie à Paris*, the outcome of an extensive inquiry which he himself led as president of the *Chambre de Commerce*, during which 64,816 heads of firms were heard, and their evidence noted, 32,000 manufactures and workshops visited in detail, in the midst of the uproar and troubled times of the second republic.

Horace Say was the devoted follower of his father's economic doctrines, and his house was ever open to students of the conditions of social welfare. One of the founders of the *Société d'Économie Politique*, of the *Journal des Économistes* and of the *Journal du Commerce*, to both of which he was a frequent contributor, he also wrote several articles for the old *Dictionnaire d'Économie Politique*, and he gave a decided impulse to the popularisation of economic literature in France, when he assisted Guillaumin in founding, in 1840, his well-known publishing firm.

[*Nouveau Dict. d'Éc. Politique* and *Annales de la Société d'Économie Politique*, vol. iv. pp. 135-145.—Bonar, *Ricardo's Letters to Malthus*, p. 91.]

E. Ca.

SAY, JEAN BAPTISTE (1767-1832), belonged to a Protestant family which had been obliged to flee from France at the revocation of the Edict of Nantes, but which returned towards the middle of the 18th century. He was the head of a complete dynasty of economists,—his brother Louis SAY, his son Horace SAY, and his grandson Léon SAY.

J. B. Say remained inconspicuous during the French revolution. Napoleon, while first consul, appointed him a member of the tribunal of 1799, but he fell into disgrace through his liberal opinions and the publication of his *Traité d'Économie Politique*, 1803. He then occupied himself with business. At the fall of the empire in 1815 he opened at Paris a gratuitous course of lectures in political economy —the first given in France; and occupied in succession a chair at the *Conservatoire des Arts et Métiers* (1819) and at the *Collège de France* (1830) but a short time before his death.

His most important work is his *Traité d'Économie Politique* which passed through many editions and has been translated into many languages. It was the first really popular treatise on political economy ever published in France; his main divisions and his terminology have become classical and have served as a model for innumerable subsequent treatises. Another more fully developed treatise in six volumes was published in 1828-29 under the title of *Cours Complet d'Économie Politique Pratique*. It is the reproduction of the course of lectures given at the *Conservatoire des Arts et Métiers*, but is inferior to his first book. His other works are of little importance.

J. B. Say is usually ranked, with A. SMITH and RICARDO, amongst the fathers of economic science. He is very inferior to the first as regards historical and philosophical knowledge, and to the second in originality and depth of view, but it would be unjust to consider him a mere populariser. He was in the true sense of the word the leader of a school—of the liberal and optimistic school, the influence of which was so great in France, particularly during three quarters of a century, and is even now felt. It is he, more than any other writer, who impressed on political economy the character of a *natural* science, as is clearly shown in the subtitle of his book *Simple exposition de la manière dont se forment, se distribuent et se consomment les richesses*, meaning by that, that riches are formed, distributed, and consumed *spontaneously*, without the necessity of any intervention; and in reference to this he criticises the definition of political economy given by Adam Smith at the beginning of bk. iv. of the *Wealth of Nations*. No one has insisted more than he on the natural laws of political economy, these laws "which are derived from the nature of things, just as certainly as the laws of the physical world; they are not imagined—they are found; they govern those people who govern others, and can never be violated with impunity" (*Discours Préliminaire*). Far more than Smith is he the representative of the liberal school in his aversion to the state "whose intervention is always objectionable even when it is indispensable," and again "as to its benefits one cannot praise them without being open to the charge of folly; what benefits can an administration distribute without causing expense to the people administered?" (bk. i. ch. vii. note).

It is true that nowadays these doctrines are generally discarded, but they have none the less exercised an enormous influence. Besides this J. B. Say contributed fundamental ideas which will always be highly valued in the science. The following are the most important:

(*a*) Tripartite division of political economy; *production; distribution; consumption*. It is true that a fourth has been added since—*circulation*, but the suitability of this improvement may be questioned, and J. B. Say, who included *circulation* in *production*, appears to be more logical.

(*b*) The method of inquiry based on observation of facts was doubtless previously practised by A. Smith, but J. B. Say is perfectly justified in opposing this to the method of the physiocrats, "who commence by assuming abstract generalities called axioms," and to

that of Ricardo, who, "drawing all his results from a small number of principles, putting or leaving aside all others, arrived at results different from the real state of the case," and even to the mathematical method, which he had anticipated before it actually existed. "It is not enough," he said, "to make facts the basis only, it is necessary to place oneself in the midst of them, to march with them, and to constantly compare the results deduced from them with the facts observed" (*Discours Préliminaire*).

(*c*) In the same way that the merit of having shown the part that *land* plays in production belongs to the PHYSIOCRATS, and the part taken by *labour* to Adam Smith, to J. B. Say belongs the honour of having shown the part of the third factor of production—*capital*, and, still more, of having analysed its three essential and classic elements—*instruments*;—continued means of subsistence during the process of production;—*raw materials*; of having shown that capital only lasts on condition of being continually destroyed by reproductive consumption; and again, of having said, long before J. Stuart MILL, "that the industry of a nation is not confined by the extent of its territory, but by the extent of its capital" (bk. i. ch. v.).

(*d*) J. B. Say first employed the well-chosen term *Entrepreneur* to designate that most important economic function of the man who collects in his hands the productive forces of capital — labour and natural agents,—and whom English economists designate by the equivocal name of "capitalist." Also as he cleverly said, "English economists almost always confuse, under the name of *profit*, the return that the *entrepreneur* obtains from his industry and his talent, and that which he derives from his capital. This imperfect analysis prevents them from giving a faithful representation of the facts" (bk. ii. ch. v.).

(*e*) Of all the theories of J. B. Say, that to which he himself attached the most importance was the *théorie des débouchés*. He said proudly, "It is the theory of heat, of the lever, of the inclined plane, which have put all nature at the disposal of man. It is the theory of exchange and openings for trade (*débouchés*) which will change the policy of the world" (*Discours Préliminaire*).

The theory of openings for trade consists simply in this, "each producer seeing that the rarer the products of his industry are, the better he sells them, has, by generalising from his experience, drawn the conclusion that overproduction is an evil." Say denies this, and claims that on the contrary each product can only be exchanged against other products, and can be exchanged so much better in proportion as the other products are the more abundant and the more varied, thus there is advantage for all—not only for consumers, but also for producers,—to him whose products are as abundant as possible.

Say does not deny that excess of production in a special class of goods would lead to a reduction in price of these goods, but the sole remedy for this evil is the proportional multiplication of other goods, "whence, what at first seems to be a paradox is deduced, namely, that production opens new channels to the goods produced" (see his *Traité d'Économie Politique*, bk. i. ch. xv. and art. DÉBOUCHÉS, THÉORIE DES).

It is an exaggeration to believe, as Say does, that this theory would change the policy of the world. Its optimism and the idea that individual and general interest are necessarily or naturally harmonious, both tend to the general well-being. The impression of this optimistic spirit evidently inspired the whole of the French school; but, it cannot be denied that there was not in the theory thus expressed any clear idea on the position of the questions of free trade and crises at the present day.

A reference, though brief, must also be made to J. B. Say's views on the distinction between science and art in economic teaching, on utility as the basis of value, on immaterial products, on the superiority of thrift over luxury from the point of view of social interest, and on almost every point of political economy.

The *Works* of J. B. Say form volumes ix. x. xi. and xii. of the *Collection des Principaux Économistes*, published by Guillaumin (1840-41-48); Ricardo's *Letters to Malthus, passim*.

A small volume of selected works has also appeared with an introduction by M. Baudrillart in *la Petite Bibliothèque Économique*, published by Guillaumin. C. G.

SAY, LÉON (1826-1896), son of Horace E. SAY and grandson of J. B. SAY (*q.v.*), was one of the most prominent statesmen of the third French republic; under the second empire, he became known by his powerful criticism of the financial administration of Paris in the *Journal des Débats*, of which he was one of the proprietors. After the *Commune*, he was appointed prefect of the department of the Seine, and reorganised the administration of Paris; a little later, although well known as a staunch free-trader, M. Thiers, president of the republic, himself quite as staunch a protectionist, summoned him to the ministry of finance. In this office he directed the payment of the enormous war indemnity to Germany, probably the most colossal financial operation of our century; his official *Report*, reprinted as an appendix to the 2nd edition of his translation of Mr. Goschen's *Theory of Foreign Exchanges* (1st ed. 1866, 2nd, 1892) is a masterpiece of clear and lucid exposition. As minister of finance, he created a new type of French stock: the *rente 3 per cent amortissable* (redeemable consols). In 1880 he was sent as ambassador to England to negotiate a new treaty of commerce, but he

was thwarted in this by the rising influence of the French protectionist party. After a fresh, but transient period of office as finance minister, he resumed his seat in parliament, first in the Senate and then in the House of Deputies, where he became the leader of the free-trade party, and where his brilliant and incisive speeches against protection and socialistic legislation were listened to with eagerness, even by his opponents. He was also elected a member of the *Académie des Sciences morales et politiques* and of the French academy.

As an economist Léon Say neither left any large work nor created any new school, but he remained to the end of his life faithful to the opinions of his grandfather J. B. SAY, and a sincere and intelligent advocate of the liberal theories of the English school of the middle of our century. Present at the banquet offered in 1846 to COBDEN in Paris, he ever after expressed a warm admiration for, and a steady adherence to, the tenets maintained by the Cobden Club. But he could do justice to other schools, and acknowledge for instance that the German *Kathedersocialisten* (see SOCIALISTS OF THE CHAIR), have performed "admirable scientific work."

He was a frequent speaker on the most varied subjects at the meetings of the Paris Société d'Économie Politique, see the Index of the *Annales de la Soc. d'Éc. Pol.*, vol. xvi. pp. 340-342. His speech at the annual dinner of the British Economic Association (25th March 1896) made shortly before his death, enabled his English friends to admire his brilliant eloquence and the cheerful optimism that looked forward to the ultimate triumph of sound economic doctrine. He also delivered lectures at the *Cercle Saint Simon*, a literary and historical club, and at the *École des Sciences Politiques*. These lectures were printed under the respective titles of *Le Socialisme d'État* (1884), and *Les Solutions Démocratiques de l'Impôt* (2 vols. 1886). In the former he analyses the particular drift of socialistic tendencies in England, in Italy, and in Germany, and comes to the conclusion that "state socialism is a German system of philosophy; . . . legitimate in Germany, it is spurious anywhere else."—*Soc. d'État*, p. 3. The *Solutions Démocratiques de l'Impôt* are directed against the proposal to use taxation as a means of social equalisation; the author maintains that the basis of taxation ought ever to be *real* and never *personal*, *i.e.* should take no account of the personality of the owner of the thing subjected to taxation. The method used is often historical; thus he gives at the end of the first volume a very interesting picture of the democratic systems of taxation prevalent in Florence from the 14th to the 16th century. Both books, and the excellent biography of TURGOT in the *Collection des Grands Écrivains Français* (1887), are characteristic of the author's habit of mind: the literary charm of his style, his wide range of thought, and the extent of his knowledge both of theory and history. The standpoint from which this calm-minded thinker, who never was a radical, contemplated the social problems and the development of the present time may be exemplified by a few extracts from his *Socialisme d'État:* "Democracy is not a fact to be judged, to be discussed, to be blamed, or to be praised; it is an atmosphere, an existing medium. . . . Men who do not understand democracy have nothing to teach us; they do not belong to the world of the living" (pp. 14-15). The aims he pursued were in fact an alliance, if not of love, at least of reason, between liberty and democracy, and will be best expressed in the words used by himself when referring to Mr. Goschen in England, and Signor Luzzatti in Italy: "They perfectly know what democracy may call into life, and what it may destroy; they take it as it is. What they want to demonstrate, is that liberty, individual self-help, and foresight are able to find a principle of development and to breathe in the very atmosphere of democracy."

Besides the above writings, León Say published the following books and pamphlets: *Histoire de la Caisse d'Escompte* (1848).—*La Ville de Paris et le Crédit Foncier.—Observations sur le système financier de M. le Préfet de la Seine* (1865).—*Examen critique de la situation financière de la ville de Paris* (1866).—*Les Finances de la France* (1883).—*David Hume* (in the *Petite Collection Guillaumin*).—*Dix jours dans la Haute Italie* (an account of Italian popular banks), and *Contre le Socialisme* (1896). Since his death, his work *Les Finances*—a description of the mechanism of the French ministry of finance,—has appeared. He also edited the *Nouveau Dictionnaire d'Économie Politique* (1892) and the *Dictionnaire des Finances*, and was a frequent contributor to the *Journal des Économistes*. Under the title of *Léon Say* (*Liberté du Commerce; Finances Publiques*) a selection of his works has been published in Guillaumin's *Petite Biblioth. Éc.*, 2 vols. 1896, with a complete bibliography. See *Journal des Économistes* (April to June 1896), pp. 161-169, the *Economic Journal*, vol. vi. pp. 318-323, and *Annales de l'École des Sciences Politiques*, 15th November 1896. E. CA.

SAY, LOUIS AUGUSTE (1774-1840), a brother of J. B. SAY, and founder of two great sugar refineries at Nantes and Paris.

He wrote several works on economics: *Considérations sur l'industrie et la législation* (1822); *Études sur la richesse des Nations et Réfutation des principales erreurs en Économie Politique* (1836); *Principales causes de la richesse des peuples et des particuliers* (1818); *Traité élémentaire de la richesse individuelle et de la richesse publique* (1827).

A severe and uncompromising critic, he insists on the necessity, "if one wants to be clear and well understood, to call each thing by its name," and inveighs against the looseness and fluctuation of the terminology of Adam SMITH and RICARDO. He also accuses the former of exclusively prizing things "after the fashion of merchants" who only care about the price at which an article can be sold. "His book contains highly interesting parts and a great deal of valuable information, but his theory of value has done much harm to the progress of theory." Louis Say considers his brother's book as "having above all previous works presented in the best way the greatest number of useful truths"; still he reproaches him with having too often forgotten the leading

principle "that there can be no production of wealth without a creation or increase of utility." He steadily and repeatedly states that "a thing is only wealth in proportion to its degree of utility"; the question of its *value in exchange* is quite a secondary matter.

[See Bonar, *Ricardo's Letters to Malthus*, p. 211 and note.] E. Ca.

SCACCIA, Sigismonde (17th century), a Roman jurist. His classical treatise on commercial law contains points of importance to economists; among these is an explanation of the then prevailing ideas on value and price, which, according to Canon Law (*q.v.*), were not to be determined by the contracting parties but by rules fixed by law in order to maintain the Justum Pretium and to establish objective justice in a contract. Hence, it was the monarch who fixed the price; failing this, Scaccia considered a fair price to be the one for which similar things can generally be obtained, and it may be high, medium, or low according to circumstances.

Scaccia also gives a clear and accurate description of the manner in which exchanges were effected at that period.

On the subject of loans, though he still adheres to canonical law, he endeavours to reconcile them to the movement of thought in his time, to diminish their severity, and to encourage comparatively liberal ideas. Scaccia, as well as other authors of his day, feels the necessity of justifying certain credit operations of undoubted economic utility, and of modifying the theory of the illegality of usury so as to meet the requirements of trade.

Thus, without denying that doctrine, he justified certain contracts whose usefulness was patent (see Dry Exchange).

Tractatus de commerciis et cambio, Rome, 1619.

[See Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *L' economia politica negli scrittori Italiani, etc.*, Milan, Hoepli, 1889.] U. R.

SCAET. See Scatta.

SCARUFFI, Gasparo (1519-1584). Born at Reggio Emilia, of an ancient family of bankers, was a merchant and banker. He was assayer of the mint at Reggio in 1552, which work he carried on for some time. Later on, he held other public and civil appointments, at the same time carrying on his banking business.

Between 1575 and 1579 he compiled his book on money, published in 1582, which gave him an important place in the history of economic science. Scaruffi entitled his work *Alitinonfo*, a strange name derived from the Greek, signifying *true light*, and taken from his desire to spread true light on the subject of money.

Scaruffi's work is a theoretic treatise on money; it does not contain any systematic statement; it is a practical treatise written with the object of formulating suggestions intended to improve the monetary system, then in a state of great confusion, owing to alterations in the money, a multiplicity of coins, bad coinage, and abuses of every description.

The author's suggestions are bold, especially for those times; and on the whole, his general ideas on money are accurate and clear.

Scaruffi distinguishes the two principal uses of money—a measure of value and a general means of exchange. He is of opinion that the value of money should be independent of the will of the monarch, who, he says, only confirms it, and that the coining money should not be a source of income to the state, but merely a service to the public.

Scaruffi, in order to get the monetary circulation of his day, then in a condition of great confusion, into order, proposes the adoption of bimetallism with a fixed ratio of 1 to 12. Owing to the scarcity of metals at that period, and the large number of coins of both metals then in use, bi-metallism became a necessity, and monometallism practically inconceivable, and the ratio of 1 to 12, proposed by Scaruffi, corresponded very fairly with the real one of the day. At this point it is necessary to note the error into which Scaruffi fell in determining this relation. He believed it to be natural and invariable, attributing the variations which had taken place to the confusion in the monetary systems, and not to the natural and variable causes which influence the value of gold and silver.

Scaruffi made many practical suggestions for the adjustment of the circulation, proposing the adoption of a monetary unit, the imperial *lira*, which was to be used as a current coin as well as a money of account. He further made suggestions on the name, weight, and manner of coining money to prevent its alteration, and discussed the organisation of mints, maintaining that the expenses of coinage should not be deducted from the coins by attributing to them a higher value than their intrinsic value,—this in his day was a source of serious inconvenience. All these suggestions of Scaruffi's led up to another proposal of his, showing a breadth of ideas and a high-mindedness far superior to his times, namely, the establishment of a universal mint, the adoption of one uniform coinage throughout Europe, based on bi-metallism, with the same shape, weight, and name in every country, "as if the world were one city and one monarchy," to quote Scaruffi's own words. He acutely observes that, with this monetary union, the less valued metal could not go out of circulation because it could not be sent profitably to other countries.

This proposal of Scaruffi's is indeed surprising and wonderful for its depth and boldness, and for the scientific arguments with

which he illustrates it, considering the political and monetary conditions of the times, the great number of small states, all clinging to their vast number of different coins.

Scaruffi's works are commented on by a fellow-citizen and contemporary, Bernardino Pratisuoli, and they are reprinted in the Custodi collection (*Scrittori Classici Italiani*, Parte Antica, tomo ii., Milano, 1804.)

L'Alitinonfo di M. Gasparo Scaruffi, Reggiano, per fare ragione et concordanza d' oro e d' argento che servirà in universale, etc., Reggio Emilia, 1582.

[See Bernardino Pratisuoli, *Considerazioni sopra l' Alitinonfo del Signor G. Scaruffi*, Reggio, 1604 (reprinted in the collection of *Argelati*, Milan, 1752).—Andrea Balletti, *Gasparo Scaruffi e la questione monetaria nel secolo XVI.*, Modena, Vincenzi, 1882.—Cossa, *An Introduction to the Study of Political Economy*, London, Macmillan, 1893.—Supino, *La scienza economica in Italia, etc.*, Turin, Loescher, 1888.—Gobbi, *L'economia politica negli scrittori Italiani, etc.*, Milan, Hoepli, 1889.—Graziani, *Le idee economiche, etc.*, Modena, 1893]. U. R.

SCEATTA. (SCEAT, SCEATT, SCAET, pl. SCEATTAS. The word denotes a part, division, or tribute, as well as a coin.) The most ancient of Anglo-Saxon coins. They are mentioned in the laws of Æthelbert, king of Kent. A.D. 565-616 (Wilkins, *Leges Anglo-Sax.*, p. 6), The types are numerous and rude, the earlier being less debased in art than later specimens; they often include Christian emblems. The earlier legends are sometimes Runic, sometimes unintelligible imitations of those on Roman coins. Weight from 7½ to 20 grains of silver, but the average is 17. In the laws of Æthelstan (Wilkins, p. 64), 30,000 *sceattas* are said to be equal to 120 pounds; but difficulties arise on this point, and nothing reliable can be stated as to their current value. Gold *sceattas* are sometimes found. These average 19·9 grains, like the Merovingian *trientes*, but one of the British Museum specimens is of the same type as a silver *sceatta* (Hawkins, No. 554) in the same collection.

[Ruding, *Annals of Coinage*, i. 108.—Hawkins, *Silver Coins of England*, ed. Kenyon, p. 24.—R. L. Kenyon, *Gold Coins of England.—Proceedings of Soc. of Antiq.*, xiv. (2nd series), p. 313.] R. H.

SCHILLING or SKILLING. The German, Dutch, or Scandinavian name for a silver coin, generally of about the same value as an English shilling.

The recent decimalisation of currency, however, in the countries where this ancient coin circulated, has involved the removal of the schilling, both as a coin and a money of account, from the currency systems now legally in force. As a denomination of account in common use it nevertheless survives in much the same way as the GUINEA (*q.v.*) does in England.

The following is a list of various schillings formerly current, showing at the same time the modern currency of the countries enumerated:

	Modern currency.
SWEDEN AND NORWAY— 4 stivers=1 skilling; 48 skillings=1 daler	100 öre=1 kroner
DENMARK— 16 skilling=1 mark [daler]; 6 marks or 96 skilling=1	100 öre=1 kroner
HOLLAND— 5 cents=1 stiver; 6 stiver=1 Flemish schilling	100 cents=1 florin or gulden
HAMBURG AND LUBECK— 12 pfennige=1 schilling; 16 schilling=1 mark	100 pfennige=1 mark

F. E. A.

SCHLETTWEIN, JOHANN AUGUST (1731-1802), regarded as the chief of the PHYSIOCRATS in Germany, was born at Weimar, studied CAMERALISTIC SCIENCE at Jena, where, from 1756 onward, he published his first writings on cameralistic and philosophic subjects. In 1763 he was invited to enter the service of Margrave KARL FRIEDRICH of Baden. Besides his official duties in Karlsruhe, he lectured on cameral science and, in 1765, founded an economic society to interest a wider circle in reform. Schlettwein, however, was not a physiocrat any more than was the Margrave, at whose court, a few years before, the Scotch refugee and mercantilist James STEUART had stayed long as a guest and had worked at his *Inquiry*. The state archives at Karlsruhe show that Schlettwein at that time was still a strong Cameralist.

Probably the margrave and the professor were converted simultaneously to QUESNAY's teaching by the ÉPHÉMÉRIDES DU CITOYEN, published from 1767 by BAUDEAU, and later by DU PONT. In 1769 distress was felt in the village of Dietlingen near Durlach. It was resolved to counteract it by the measures recommended by the physiocrats. Schlettwein was entrusted with the execution of the reforms, which were started in 1770 with the assistance of some ladies of rank, among whom was Schlettwein's future wife Fräulein von Gersau. The earliest description of the measures taken was given by Schlettwein in his book *Les moyens d'arrêter la misère publique et d'acquitter les dettes des États*, 1772. It was written, or rather finished, the year before in Paris, whither the Margrave had gone in company with Schlettwein, to confer personally with the leaders of the physiocratic school, especially with MIRABEAU. Already at that time an estrangement seemed to have arisen between the Margrave and Schlettwein, which caused the latter to resign his office in October 1773 and to go to Vienna. His hope of finding a place in the imperial administration was not realised, and after a year's absence he

returned to Karlsruhe, where he tried in vain to be appointed again. At this time (1775) his marriage took place. In the autumn of 1776 he settled with his friend and co-physiocrat, Isaac ISELIN (*q.v.*), editor of the *Ephemeriden der Menschheit*, at Basle, where he received permission to give lectures at the university. In 1777 F. K. von MOSER, minister of state at Hesse-Darmstadt, offered him a professorship in the newly founded *Oekonomische Fakultät* at the university of Giessen.

As early as 1772 he had published his work on the physiocratic system, under the title *Die wichtigste Angelegenheit für das ganze Publikum; oder die natürliche Ordnung in der Politik überhaupt, besonders aber die allgemeine Freiheit im Handel und Wandel, etc.* 2 vols. He now wrote the second of his principal works: *Grundveste der Staaten oder die politische Oekonomie*, 1778, which he made the basis of his lectures. He then edited one of the many periodicals devoted to physiocratic ideas: *Archiv für den Menschen und Bürger in allen Verhältnissen*, 6 vols. of which appeared between 1780 and the end of 1784. Certain views in it gave offence to his colleagues at the university and also at the Hessian Court, and in order to avoid difficulties he resigned his professorship in 1785 and withdrew to the estate at Beseritz in Mecklenburg which his wife had inherited. Here he continued his periodical under the title *Neues Archiv für den Menschen und Bürger*, from 1785-1788 in 5 vols. In the 3rd vol. he began a copious history of his experiments on physiocratic principles undertaken in Baden: *Vollständige und beurkundete Nachricht von der im Jahre 1770 geschehenen Einführung des Physiokratischen Staatswirthschaftssystems in dem Baden-Durlach'schen Orte Dietlingen, und von den Wirkungen dieser politisch-ökonomischen Reformationen.* The treatise was not finished, as the periodical was definitely given up in 1785. In Beseritz, Schlettwein abolished serfdom, on which account he was at strife with his neighbourhood; he separated from his wife and emigrated to Greifswald, where he is said to have lectured at the university as *Privat-docent*. His daughter was the mother of RODBERTUS.

Schlettwein may be described as the most zealous, but also as the most one-sided physiocrat. He resembles in some ways the Marquis MIRABEAU, whose rhetorical pathos he shared as well as his wilfulness in matters of doctrine. If QUESNAY had described an "ordre positif" besides the "ordre naturel," of which the latter should have an absolute, and the other, because referring to practice, a relative character, this distinction entirely disappeared with Schlettwein.

Like Mirabeau he held most rigidly the dogma that the "evidences" of natural order must instantly and without restriction be brought into practice. When his early friend, Schlosser, to whose district the villages Theningen and Bahlinger belonged, where the introduction of the physiocratic régime was introduced, wrote, that with the introduction of the new freedom, the abolition of the gilds might be gradually proceeded with, Schlettwein answered: "No. If there is anything injurious to human society, slothful hesitation to remove it is not becoming in a wise and good man: only children would act thus." A violent doctrinaire, he was an extreme champion in the literary dispute which arose in Germany towards the end of the 18th century over the merits and demerits of the physiocratic system (see GERMAN SCHOOL OF POLITICAL ECONOMY).

[R. Zuckerkandl, article in the *Deutschen Biographie*, vol. 31. — A. Emminghaus, "Karl Friedrich von Badens physiokratische Verbindungen, Bestrebungen und Versuche, ein Beitrag zur Geschichte des Physiokratismus," *Jahrbücher für Nationalökonomie*, xix., 1872; "Ein deutscher Physiokrat," in the periodical *Im neuen Reich*, 1873. — K. Knies, *Carl Friedrich von Badens brieflicher Verkehr mit Mirabeau und Du Pont*, 1893. — A. Oncken, "Zur Geschichte der Physiokratie," in Schmoller's *Jahrb. für Gesetzgebung*, 1894. — Schmidt, article in the *Handbuch der Staatswissenschaften*, vol. v.] A. O.

SCHLÖZER, AUGUST LUDWIG VON (1735-1809), was born at Jagstadt, studied history, medicine, and oriental literature at Wittenberg, Göttingen, and Upsala, became in 1761 private secretary of the Russian historiographer Müller at St. Petersburg, and in 1764 professor of history in the Petersburg academy. In 1769 he quitted the Russian service, and accepted an invitation to fill the chair of philosophy at Göttingen. On ACHENWALL'S death, in 1772, he succeeded him as professor of politics, European history, and statistics, became a Hanoverian Hofrath in 1782, and was ennobled by the emperor Alexander in 1804.

Schlözer is classed among the "liberal eclectics" of his century. His principal strength lay in the combination of history with political philosophy. He preached the doctrine, now universally accepted, that history has to deal with something more than military or diplomatic transactions "after the manner of the Anno-Domini men," and should present a view of the whole life of a people, and, in particular, of its economic conditions at different epochs, and of the economic consequences of political acts. This idea he expressed epigrammatically by saying that he thought a history of tobacco as interesting as that of Tamerlane or of the ancient Assyrians, if the importance of events were measured by their influence on world-changes, and that the introduction of tea, coffee, and sugar had wrought as considerable effects in Europe as the invincible Armada or the war of the Spanish succession. But he wanted the highest historic capacity—the power of entering into the spirit of different times and stages of culture. As an economist, he is mercantilist in his general views, following in the track of Sonnenfels; like him he exhibits partial leanings towards free trade, and does not entertain the exaggerated estimate of the importance of a large population which was one of the reigning prejudices of his period. In statistics he was the most remarkable of Achenwall's disciples, and the principal representative of the Göttingen school in that department. He regarded statistics as a part of politics, to which it was related as the knowledge of the human

body to therapeutics. He defined history as *statistics in motion*, statistics as history at rest. There is yet another character, in which he is specially memorable as the "founder of publicity" in Germany. As editor of the periodical publications entitled *Staatsanzeigen* and *Briefwechsel*, he exercised a great, and sometimes a formidable, influence—exposing abuses in public life, and contending against tyranny and repression of opinion, especially in the petty principalities, where mediæval institutions, restrictions on the press, and arbitrary interferences with personal liberty still prevailed. He is said by his criticisms to have led even powerful sovereigns like Maria Theresa and Joseph II. to carry out some of the reforms with which their names are associated.

[Frensdorff in *Allg. Deutsche Biogr.*—Lippert in *Handw. der Staatswissenschaften.*—Roscher in *Gesch. der N. O.*, p. 582]. J. K. I.

SCHMALZ, THEODOR ANTON HEINRICH (1760-1831), born at Hanover, studied theology and philology at Göttingen from 1777 to 1780, and, returning to that university in 1783, devoted himself to jurisprudence. He became professor of law at Rinteln in 1788; and was called to fill the corresponding chair at Königsberg in 1789. He was appointed assessor in the East Prussian war-and-domains chamber in 1793, and in 1801 was made chancellor and director of the university. He was transferred to Halle in the same capacities in 1803; and when that city became incorporated in the kingdom of Westphalia, he resigned his functions, and went to Frederick William III. at Memel, to represent to him the propriety of removing the university of Halle to Berlin. The king preferred the plan of a new foundation for his capital, but meantime employed Schmalz as a lecturer in Berlin, and conferred on him high judicial office; when the university of Berlin was established in 1810, he made him its first rector, as well as ordinarius of the faculty of law. Schmalz died at Berlin. He was brother-in-law of Scharnhorst, the military re-organiser of Prussia. In political opinions he was an absolutist; he opposed the creation of representative institutions, and rejected the principle of the separation of the legislative, executive, and judicial powers. In 1815, by a pamphlet on political societies, directed against the Tugendbund and later bodies of a similar kind, he sounded the note of reaction against the men who had taken the lead in the war of liberation, and, in particular, against H. F. K. vom STEIN. This tract produced a great sensation, and was answered by Niebuhr, Schleiermacher, and others. The king of Prussia after a time forbade the continuation of the controversy.

In economics, Schmalz has been called "the last of the physiocrats." Though he criticised Adam Smith severely, he was opposed to protective duties. He compared Colbertism to the Ptolemaic, physiocracy to the Copernican system of the world, Smith being the Tycho Brahe holding an intermediate position between the two. The doctrines of Quesnay, he was convinced, would ere long everywhere triumph. He is a graceful and versatile, rather than a profound, writer. Most of his publications related to law, in which he builds on the doctrine of the JUS NATURÆ. Of his economic, or partly economic, writings may be mentioned a commentary on the Prussian emancipating edict of 9th October 1807; *Handbuch der Staatswissenschaft*, 1808; and *Staatswirthschaftslehre in Briefen an einen teutschen Erbprinzen*, 1818 (translated into French by Jouffroy).

[Landsberg in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 498]. J. K. I.

SCHMEITZEL, MARTIN (1679-1747), was originally professor of history, geography, and philosophy in the university of Jena, and after 1731 of history and political law in Halle. He used the word *statistics* much earlier than his pupil ACHENWALL (*q.v.*), who is sometimes credited with having coined it. Thus, in 1725, he advertised in Jena his *Collegium Statisticum*, where he intended to lecture on the state of the nations of Europe. In fact, the adjective *statisticus* seems to have appeared for the first time in 1672 in the title of Helenus Politanus's *Microcosmium Statisticum*. By a happy stroke Schmeitzel introduced it in the official vocabulary of universities, and thus launched it into scientific circulation, but he did not employ it in the title of his *Einleitung zur Staatswissenschaft*, Halle, 1732. Achenwall, however, followed to a great extent, in his teaching, the lines adopted by his master.

[Article Schmeitzel in Conrad's *Hdwbuch der Staatswissenschaften*, vol. v. p. 582.—Roscher, *Gesch. der Nat. Oekonomik in Deutschland*, p. 466, note 1, and *Allgemeine Deutsche Biographie*]. E. CA.

SCHMIDT, CASPAR. This writer was best known as STIRNER, MAX (*q.v.*).

SCHÖN, HEINRICH THEODOR VON (1773-1856). His father, who was a pupil and friend of KANT, sent him to study jurisprudence and politics at the university of Königsberg, where he came much under the influence of the philosopher. In economics KRAUS was his teacher; "he mastered me entirely," says Schön himself; "I followed him without reserve." And, as Kraus was a thorough-going disciple of Adam SMITH, he imbued his pupil with the doctrines of the *Wealth of Nations*, and, in particular, with free-trade ideas, which profoundly affected his public action in his maturer years. In 1793 he became Referendarius under Von Schrötter, ober-president of East Prussia. In 1796-98, by desire of his official chief, he travelled in Germany and England, keenly observing, as his diary shows, the social condition and character of the populations. He was an ardent admirer of the institutions and people of England; he said in after-life, "through England I first became

a statesman." In 1800 he was attached to the general directory at Berlin, and became prominent after the Prussian catastrophe of 1806. He had a considerable share in the Stein-Hardenberg legislation, though, as Professor Seeley and others have shown, not so large a share as in later years he claimed. He was a member of the Immediate commission appointed under Hardenberg's ministry, which prepared the reforms of 1807, and he drew up the report of 17th August of that year, in which is embodied the substance of the emancipating edict. But to the contents of this report Stägemann, Altenstein, and probably Hardenberg himself, contributed quite as much as Schön. When the edict was being framed, he desired to push the principles of free-trade to an extreme, proposing that the lord should be at liberty to dispose of his land at will, unrestrained by the hitherto existing prohibition of the diminution of the number of peasant holdings. But Stein wisely introduced provisions to protect the small tenants, which prevented the absorption of their farms, and softened the transition to the new system. When Stein finally retired, Schön was put forward by the patriotic party as candidate for the office of finance minister; but the king by Hardenberg's advice preferred Altenstein, and Schön was placed at the head of the department of trade and manufactures. Stein's political testament was written by Schön, though of course the substance of it is not his. When Hardenberg came into office as chancellor, he had in contemplation bold financial projects, which, however, were disapproved by Schön and Niebuhr and also in some degree by Stein, whom Hardenberg acknowledged to be his master in finance; hence these projects were only partially carried out. In their modified form they included, besides other things, forced loans on the domains and on Protestant and Roman Catholic ecclesiastical property, with the announcement of a future sale of the domains and disendowment of both churches and of the Order of St. John. Schön was made president of Lithuania in 1809. He was sincerely patriotic in sentiment during the war of liberation, though in some cases he impeded the national movement through exaggerated caution and a pedantic legality. He was appointed president of East Prussia in 1816, and in 1824 was placed at the head of the united provinces of East and West Prussia. In these governments he showed great ability, exercising an enlightened despotism, and holding himself very independent of the ministry at Berlin; he improved the means of communication, extended public instruction, and promoted the progress of agriculture. Strange to say, he opposed the foundation of the Zollverein. His great weakness was vanity, and in his later years, thinking his services not to have been duly recognised, he looked with suspicion as well as envy on his eminent contemporaries, and in particular sought to belittle Stein, for whom, when actively engaged at his side, he had expressed the warmest admiration. He retired from office in 1842.

Though Schön was too abstract and absolute in his economics, his official reports and other state papers prepared or matured many important measures. The collection entitled *Aus den Papieren Schöns* (4 vols. 1875-76) contains much autobiographical matter, which, with due deduction for his exaggerated estimate of his own work, is very instructive, especially for the critical period of the Prussian revival.

[Pertz's and Prof. Seeley's Lives of Stein.—Ranke's *Memoirs of Hardenberg*.—Maurenbrecher in *Allg. Deutsche Biogr.*—Roscher, *Gesch. der N. O.*, p. 712]. J. K. I.

SCHRÖDER, WILHELM FREIHERR VON (d. 1689) was, after J. J. BECHER and P. W. von HORNECK, the third of the eminent cameralists (see CAMERALISTIC SCIENCE) who flourished during the reign of the emperor Leopold I. (see GERMAN SCHOOL OF POLITICAL ECONOMY). Like his two colleagues, he was by descent neither Austrian nor Roman Catholic. The year of his birth is unknown. As son of the chancellor of the Duke Ernest of Gotha, he appears to have been for a time in the service of the duke. He was also a zealous alchemist. In the last capacity he passed (1663), soon after his father's death, into the employ of Charles II. of England, in whose laboratory in London he, according to his tract, *Unterricht vom Goldmachen*, was occupied many years. In 1670 he presented to the king, as a new discovery, a drinking vessel of red glass which he had prepared. He was also for some time in Holland. In 1674 he entered the Austrian service, with which his becoming a Roman Catholic was connected. More on this point is unknown. At first Schröder had been appointed to the chamber at Oedenburg; he then became Becher's successor as director of the *Kunst und Manufakturhauses* which had been established at the Tabor, near Vienna. But Schröder was destined to have as little good fortune in this as his predecessor. In 1633 the house which was to have been a training school of arts and manufactures was burnt at the siege of Vienna by the Turks. The attempt to recall this institution again to life in 1635 failed.

In 1636 Schröder was offered an administrative place in Hungary. He completed in the same year his celebrated work dedicated to the emperor, *Fürstliche Schatz- und Rentkammer*. Later on some of his earlier treatises were added as supplements, the *Disquisitio Politica vom absoluten Fürstenrecht*, the treatise *Nothwendiger Unterricht vom Goldmachen*, and the *Dissertatio*

de Ministrissimo vom Ober-Staatsbedienten. The publication of his *Oesterreichs entdeckte Wunden*, which he was preparing, was prevented by his sudden death in 1689.

In his cameralistic views Schröder was in accordance with BECHER and HORNECK. He also made use of the works of foreign authors, as of MUN'S *England's Treasure by Foreign Trade*, and of P. de la COURT'S *Het Interest van Holland*.

ROSCHER has rightly blamed him for not mentioning his indebtedness to Mun's work. But Roscher goes too far in placing Schröder among the rigid mercantilists in the sense of confusing money and wealth. Schröder held that it is "not the import and export of money, but the equilibrium of the different trades which causes the wealth or poverty of a country." He even approaches the opinion that coin can be dispensed with, and replaced by a bank-note issued from a *landesfürstliche Wechselbank*, under the immediate authority of the prince. As the chief authority over the exchange operations of the country, the prince could dispose of the whole of the capital of his subjects, for whose business he provided the circulating medium. He would thus become the "belly" from which all the members of the body, that is, of the state and nation, derived their nourishment. Of the three productive classes of the people, the peasants, the mechanics, and the merchants, the merchants were regarded as the "hands and feet of the state," because external movement results from them. On the other hand, he suggests that they should not be chosen as advisers for the economic welfare of a country, as they are more "cives orbis quam urbis," whence it must be regarded as an "axiom that a merchant thinks of his own advantage and not of the prosperity of the state." To discover what is of service to a country, Schröder recommends the preparation of a general inventory of home manufactures after the pattern of one that had been prepared under the direction of his former master, Duke Ernest of Gotha. By drawing up tables of the imports and exports of a country, it was certainly possible from such an inventory for a statesman to form an accurate idea of the condition of home products and what was needed for their improvement. He characterised this, which he called the "spectacles of the state," as the "strongest pillar of a state," as the "great arcanum status" by which "the whole system of government, both theory and practice, may be mechanically managed." Schröder was amongst the earliest of the German cameralists who distinctly supported the balance-of-trade theory which he had derived from Mun. "Free trade" (see FREE TRADE, EARLY HISTORY OF) was regarded by him as "the principal and the best means whereby a country may become rich." But assistance must be given by a suitable system of duties, as through duties "the whole clockwork of commerce and manufacture can be set to go fast or slow." The principal rule of the policy of the government must be that "nobody be allowed to wear anything not produced in the country." Schröder emphatically declared himself in favour of the absolute sovereignty of princes. Every restriction of the rights of the sovereign was opposed to God's law, and was not binding for princes.

[Roscher, *Geschichte der Nationalökonomik in Deutschland*, 1874.—"Oesterreichische Nationalökonomik unter Leopold I.," in Hildebrand's *Jahrb. f. Nat. Oek. und Statistik.*—G. Marchet, *Studien über die Entwickelung der Verwaltungslehre von der zweiten Hälfte des 17. bis zum Ende der 18. Jahrhunderts*, 1885.—A. T. Hatschek, *Das Manufakturhaus auf dem Tabor in Wien*, 1886.—*Allgemeine deutsche Biographie*, art. "Schröder."]

A. O.

SCHULZE-DELITZSCH, FRANZ HERMANN (1808-1883), was born at Delitzsch in Prussian Saxony. His family name was Schulze simply, but he took the suffix Delitzsch, or others gave it to him, when he became a member of the national assembly, to distinguish him from other Schulzes, and the addition continued to be used after his connection with the locality had ceased. He studied jurisprudence at Leipzig and Halle, 1826-29, and afterwards filled several judicial posts. In 1848 he was elected to the national assembly as representative of his native place, and in 1849 was a member of the second chamber. He was one of those who in that year were put on their trial for refusing to pay taxes, and conducted his own defence and that of the other accused persons with brilliant ability and success. At a later period he was a member of the Prussian landtag and the imperial diet. In 1851 he resigned his official position under the government in consequence of a conflict with the minister of justice. He was the originator of the co-operative movement in Germany, and in the creation, guidance, and extension of these associations he laboured with voice and pen to the end of his life with unwearied assiduity. His self-sacrifice in this cause impoverished him, and his friends and admirers in 1863 presented to him a gift of £7500, of which, however, he accepted only a small part for himself, devoting the rest to an institution for the furtherance of his social plans.

It is as a sagacious and energetic practical worker that Schulze-Delitzsch is memorable. As a theoretic economist he has no claim to distinction. He borrowed his fundamental principles in the main from BASTIAT. He was an advocate of free-trade and unlimited competition, and maintained the policy of self-help as against state-help. He was thoroughly acquainted with the condition and wants of the small producers and traders, and it is possible that his schemes were better adapted to their needs than to those of the proletariate. LASSALLE assailed him with gross abuse, on the ground that his programme of self-help was of no value for those who could not help themselves, and only tended to lead the working classes into wrong paths. Lassalle's culture and dialectic skill gave him the advantage in the controversy, but the violence of his attack was unjustifiable. Whatever we may think of

co-operation as a solution of the labour problem, we cannot deny to Schulze-Delitzsch the praise of having wrought out a useful partial reform, and of having exhibited remarkable courage, perseverance, moderation, and good sense in the disinterested pursuit of a social end. In 1881 he was able to announce the existence in Germany of 3481 co-operative associations of consumption (*Consumvereine*) or credit (*Vorschussvereine*). The latter, under the name of People's Banks, form a special feature of Delitzsch's scheme. Something of the same kind was originated for the rural population by RAIFFEISEN, but both reformers seem to have devised their respective foundations independently of each other.

There is a German biography of Schulze-Delitzsch by A. Bernstein, 1879, and an *Esquisse biographique* by B. Rampal, 1874.

Of his very numerous publications, which had usually an immediate object, and therefore only a temporary interest, the following may be mentioned: *Kapitel zu einem deutschen Arbeiter-Katechismus*, 1863; *Soziale Rechte und Pflichten*, 1867, and *Die Entwickelung des Genossenschaftswesen in Deutschland*, 1870.

[Eheberg in *Allg. Deutsche Biogr.*— Schmidt in *Handw. der Staatswissenschaften.*— Roscher, *Gesch. der N. O.*, p. 1016]. J. K. I.

SCIALOJA, ANTONIO (1817-1877), was born at San Giovanni a Teduccio (Naples). As a youth he studied at Naples the writings of the older Italian economists as well as the more modern Italian and foreign economists. At twenty-two, in the year 1840, he published his *Principii di economia sociale.* This work had a great success in Italy and elsewhere, went through many editions, and was translated into French (1843). In 1846, Scialoja was summoned to Turin to occupy the chair of political economy, then established there. After two years he resigned this post and became minister of Ferdinand II., king of Naples, when the latter for a short time pretended to pose as a reformer and a liberal. After this, Scialoja was imprisoned by the reactionary Neapolitan government and condemned to a long term of imprisonment; this sentence was commuted into exile in 1852. After three years' imprisonment, Scialoja took refuge in Piedmont, where he enjoyed the friendship of CAVOUR; then, again, he became minister of finance in Naples, when Garibaldi was dictator there; minister of finance of the kingdom of Italy in 1865, and at a very critical time he was obliged to establish the *Corso forzoso;* later on he became minister of public instruction. Scialoja's book, *I principii d' economia sociale*, is, considering the date when it was written, a very noteworthy work. The author discusses broadly the principal arguments of economics and finance, following in the footsteps of English economists and in their temperate but eclectic views. In this, as in his other works, Scialoja stoutly upheld the principles of liberty, at a date when Naples was the stronghold of absolutism and protection. In the *Principii*, he asserts the importance of mathematics in economic researches, and recognises the expediency of using them, especially in the theory of value.

His work, *Carestia e Governo*, written in the style of BASTIAT, sparkles with controversial vivacity. Another of his works on the finances of the kingdom of Naples made a great stir in his time, through the comparison instituted between Sardinian and Bourbon administration.

As a minister of Italy he made a special study of the land tax, advocating, in opposition to others, the theory of "consolidation."

He desired to establish a fixed minimum land tax, which he thought would become consolidated and for which an authorised rate of redemption would be allowed, also an individual tax on agricultural industries as part of the tax imposed upon all returns.

Principii di economia sociale esposti in ordine ideologico, Naples, 1840.— *Trattato elementare di economia sociale*, Turin, 1848.— *Carestia e Governo*, Turin, 1854.— *Note e confronti dei bilanci del regno di Napoli e degli stati Sardi*, Turin, 1857.

[See De Cesare, Carlo, *La vita, i tempi e le opere di Antonio Scialoja*, Rome, Forzani, 1879.—Cossa, *An Introduction to the Study of Political Economy*, London, 1893.] U. R.

SCIENCE, ECONOMIC, AS DISTINGUISHED FROM ART (see *supra* ECONOMIC SCIENCE AND ECONOMICS). The distinction between political economy as a science and as an art has been discussed at length by J. S. MILL, SENIOR, F. A. WALKER, Cossa, and Sidgwick. The last-named writer points out the causes of the "widespread confusion—or at least fusion —" of these two standpoints, that must strike the student of economic literature. They must be sought in the conditions of social existence, and in the evolution of thought and language. In the social state, however men may discuss and theorise concerning the nature of social phenomena, the problems arising in relation to the most effective methods for satisfying wants and securing government are ever pressing for solution. Practical considerations, therefore, have been the historical *prius* in economic literature. The science of political economy has only in this century ceased to be ancillary to them. Again, specialisation in "moral" philosophy or science, whether as to subject-matter or method, is of recent growth. The term "political economy" is itself an instance of relatively undifferentiated thought. And it is but yesterday that the word "science" stood for any body of truths or reasoned thought, with or without a view to practice, which, in Mill's words, had "acquired a collective denomination." Economists may now insist with him that their subject, *qua* science, has nothing to do with the "do this; avoid that"

of art, yet M'Culloch, no less than Smith, speaks of a practical "object" for the "science," while De Laveleye so fused the two standpoints as to define political economy as "the science which determines what laws men ought to adopt," etc. Besides these more general causes of confusion, a special circumstance in the history of economic thought has been pointed out by Professor Sidgwick. The principle of *laissez faire* for trade advocated by the Physiocrats as the logical corollary of their optimistic philosophy—involving their whole social standpoint—tended to identify the "ought to be" of subsequent economic doctrine with the "natural" or existing organisation of society. Steuart's "great art" of political economy melted gradually, at least in this country, into a view of economic phenomena best described by the title of Smith's immortal treatise. And finally, the repudiation by economists of any essential standpoint beyond that of scientific analysis and prediction, has been to some extent one of self-defence against the attacks directed by ethical writers at the apparently anti-social "teachings" of their "dismal science." Their ambiguous definitions and methods, as well as the want of scientific training in their assailants, led the latter to see precepts where, more or less, only statements of cause and effect had been formulated.

With the growth of lay intelligent interest in economic inquiries, and the improved clearness in methodological procedure in experts, it is neither to be feared nor desired that political economy should limit itself overmuch in range or treatment, or reserve the term "art of political economy" for questions of revenue, or what the *laissez faire* spirit has termed the "interference" of a central government. There is no question relating to the satisfying of wants under a social mechanism that may not be legitimately discussed from the economic point of view, whether it be by way of analytical or historical inquiry into economic phenomena, or of more or less abstract theory pure or applied, or of social ideals in their economic bearing. The advantage of the German term *Lehre* in the term *Volkswirtschaftslehre* lies in this combination of lore and doctrine, of science and art. Thus while the Schönberg *Handbuch* and the Jena *Handwörterbuch* assert that the *Lehre* of national economics as taught in Germany is a science of investigation into social functioning, it is also insisted that out of these inquiries into the development of national life, and on its behalf, ideals are by "political economy" both to be extracted and propagated.

[Mill, *Definition and Method of Political Economy.*—Senior, *Pol. Econ.*, pp. 1-5.—Walker, *Pol. Econ.*, §§ 27-31.—Cossa, *Introduzione allo Studio, etc.*, 3rd ed. ch. iv. § 1.—Sidgwick, *Principles of Pol. Econ.*, ch. ii.—M'Culloch, edition of Ad. Smith's *Wealth of Nations*, pp. xv. 187; *Principles of Pol. Econ.*, p. 8.—De Laveleye, *Pol. Econ.*, I. i. § 1.—Carnes, *Character, etc. of Pol. Econ.*]

C. A. F.

SCIENCES, Moral and Political. It is usual to group the sciences under two principal heads, the moral and the physical. The external or sensible world, including the human frame, is the subject of the physical or natural sciences. The internal or invisible world of thought and will is the subject of the moral sciences. The moral sciences are supposed to imply, the natural sciences to exclude, the idea of freedom or self-determination. The natural sciences deal with blind force, the moral sciences with reason more or less conscious. Both the natural and the moral sciences assume a rational order in the phenomena under investigation. But, so to speak, in the one case the rational order is imposed from without, while in the other it is evolved from within. The law of gravitation is equally fulfilled in the case of an apple falling from a tree and a man jumping from a wall. But the apple has no choice as to falling, and passes no judgment on the results of its fall. The man chooses whether to jump or no, and is satisfied or dissatisfied with the result as may happen. As a mass of matter descending he is an object of physical science. As a thinking and willing agent he is an object of moral science. The physical sciences range from mathematics, the science of pure number and extension, to sciences dealing with the most subtle and complex forces, such as physiology. The moral sciences are also many, and their boundaries are even more difficult to trace with precision. The science of psychology is concerned with what we may term the natural history of the mind or soul, the description and classification of its various faculties. The science of logic is concerned with the action of the speculative faculties, with the process of knowledge. It seeks to solve the problem how man comes to know. The science of ethics is concerned with the action of the practical faculties, with the process of conduct. It seeks to explain the meaning of moral good and evil, of duty, conscience, and virtue. The moral sciences thus far enumerated concern themselves primarily with man as an individual. But man is also a member of society. We cannot fully understand man as an individual unless we understand society, for society is the outcome of the needs and capacities of the individual, whilst these needs and capacities are in turn transformed by the action of society. The science of society is a great and indispensable part of moral science. For the science of society we have not, unfortunately, any appropriate name. To the Greeks it was known as politics. But our conception of the

study of society has been so much enlarged as to include much that lies outside the Greek conception of politics, whilst the term politics has been so much narrowed and degraded as to have lost nearly all its scientific associations. The term sociology, invented by A. COMTE, is a barbarous hybrid, but it is the only term which has found wide acceptance of late years.

The science of society is in fact a group of sciences. Thus it includes politics proper, the science of that highly complex form of society which we call the state or the commonwealth. What are the conditions of the rise, duration, and decay of the state? What is its essence? What are its possible forms? What are the possible relations between the governing and the subject elements in the state. These are some of the principal inquiries included in the science of politics. But before the rise of anything that can be called the state there existed more elementary forms of society based solely on kinship or religious ideas. These elementary forms of society come within the scope of anthropology. Even after the rise of the state there are numberless forms of association other than the strictly political one. Human beings combine for domestic life, for worship, for intellectual advancement, for pleasure, for the accumulation of wealth, and for many other objects which cannot be fully attained but by combination. Each of these modes of association has peculiarities of its own, and may be studied to some extent in isolation from the rest. As regards political economy, we must remember that, although the desire for material well-being is an individual appetite, the production, the distribution, and consumption of wealth on any but the smallest scale are possible only in and through society. Hence political economy is a branch of the science of society. The epithet political, indeed, implies something more. The economists of the mercantile school (see MERCANTILE SYSTEM) studied wealth primarily as an element in the power of the state. Even their great adversary, Adam SMITH, entitled his treatise the *Wealth of Nations*. But his successors, obeying the impulse which he had given to the study of free individual activity, tended to regard wealth as the means of individual happiness. This tendency is best exemplified, perhaps, in the writings of J. S. MILL. But whichever view be preferred, it is man in society that is the subject of economic study. PLATO and ARISTOTLE were therefore right in regarding economics as a branch of politics in the very wide sense which they gave to that term. Men associate, Aristotle said, at first in order to secure life, and afterwards in order to secure a good life. In either case wealth is the indispensable means to the end for which society exists, and the science of society includes the science of wealth. F. C. M.

SCIRE FACIAS. As a general rule a judgment against a corporation cannot be executed against the members of the corporation. There are, however, certain companies (including companies incorporated under the Companies Clauses Consolidation Act, but *not* including companies governed by the Companies Acts), with respect to which judgments obtained against the company may, subject to certain conditions, be enforced against the shareholders. According to the former practice a proceeding in the nature of a new action and known by the name of "Scire Facias" had to be instituted by a creditor who wished to avail himself of this right; this procedure has not been abolished, but as the same object may now be obtained by proceedings under the rules of the Supreme Court, order 42, rule 23, which are much simpler, "Scire Facias" proceedings are no longer resorted to.

[See Lindley, *The Law of Companies*, 3rd ed., 1889, pp. 276-292.] E. S.

SCOLA, GIOVANNI (18th century), was the author of a treatise on taxation; of this Scola distinguishes three,—personal taxes, those imposed on articles of consumption, and those imposed on property and interest-bearing funds. He analyses the first two, showing the difficulty of imposing equitably, and dwells especially on the third, maintaining it to be the greatest and most certain source of public revenue. He studied the CATASTO, especially criticising the method on which it was organised, and proposes a new system for general taxation, not only on land and buildings but also on manufactures and trades. His ideas on the basis of taxation are, however, somewhat vague and undefined.

Saggio sopra le pubbliche imposte, Venice, 1787.

[See Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881]. U. R.

SCOT AND LOT. To "scot and lot," or "to be in scot and lot," is a common phrase in mediæval town records, and means to be subject to rates and taxes. Some writers say that "scot" refers to taxation, while "lot" refers to the active duties of a burgess, above all, to the holding of office. This view is untenable as regards the middle ages; the distinction made by some writers between "paying scot" and "bearing lot" is a modern and erroneous interpretation of the mediæval phrase. There is abundant evidence in municipal records to show that "to be in scot and lot" meant merely to participate in assessments or pecuniary charges (tallages, aids, etc.). "Scot" and "scot and lot," are often employed as synonyms, and both are used interchangeably with other words denoting money contributions or pecuniary burdens.

[Fry, *On the Phrase Scot and Lot*, in the transactions of the Philological Society, 1867, pp. 167-197.—Gross, *Gild Merchant*, i. ch. iv.] C. Gr.

SCOTT, WILLIAM, a London "draper," *i.e.*

cloth merchant (see Ashley, *Economic History*, ed. 1893, p. 212), wrote *An Essay of Drapery or the Compleate Citizen* (1635), which, may be compared with Defoe's *Complete English Tradesman*. For theological point of view see the *Ayenbite of Inwyt* (a translation from the French work; *Le Somme des Vices et des Vertus*). Scott's attempted reconciliation of his two axioms that "the end of trade should be the good of both parties," and that buying cheap and selling dear is "a common vice," leads to curious casuistry, of which we give two samples. "Men are not apt to take so exact notice of spiritual blessings . . . unless temporal blessings be added to them; therefore, labour for them" (p. 115). "In some cases my citizen may mingle profit with honesty, and enter into a composition with both; he must never turn his back to honesty, yet sometimes go about and coast it, using an extraordinary skill" (p. 137). J. D. R.

SCRIP. This is the name given to the provisional certificates which on a new issue of government bonds or debentures or shares are handed to the subscribers and are subsequently exchanged against definite certificates. They may be issued to bearer, in which case they are treated as negotiable securities.

[Palmer, *Company Precedents*, 6th ed. p. 700.]

R. S.

SCROFANI, SAVERIO (1756-1837) a Sicilian priest, originally professor of agriculture at Venice, lived, after the destruction of the Venetian republic, several years in Paris, where he was chosen a member of the Institute of France. In 1814 he was appointed director of the statistical department at Naples, but on account of his liberal tendencies was obliged to resign in 1822.

Strongly imbued with the ideas of the French PHYSIOCRATS (*q.v.*), Scrofani regarded landowners and agriculturists as "the only possessors of future wealth," and "those who essentially compose the nation." On this basis he maintained the necessity of freedom of trade in corn in particular and of free-trade in general. His views are stated in his *Memoria sulla libertà del commercio dei grani della Sicilia* (included in Custodi's *Scrittori classici italiani dell' ec. pol.* Parte moderna); in his *Elogio del Granduca Pietro Leopoldo di Toscana* (reprinted in Gianni's *Raccolta degli economisti Toscani*, vol. i., Florence, 1848); and in his *Memorie di economia politica* (Pisa, 1826); in the latter he also treated on ancient and modern systems of taxation, and discussed Italian manufactures. Towards the end of the last century a memorial in favour of free trade in corn, founded on facts collected in Tuscany, was presented by him to the king of Naples under the title of *Riflessioni sopra le sussistenze, risvegliate da fatti osservati in Toscana*, and printed as an appendix to Biffi Tolomei's *Confronto della ricchezza dei paesi che godono libertà nel commercio frumentario* (1795). An adaptation of his early works was published in French under the title of *Essai sur le commerce en général des nations de l'Europe avec un aperçu sur le commerce de la Sicile en particulier* (Paris, 1802).

[U. Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, pp. 268-269 (Milan, 1884).]

E. Cä.

SCROPE, G. POULETT (1797-1876) economist and geologist, was originally called Thomson, but took the name of his wife on marrying the heiress of the Scrope family. After travelling extensively, he published in 1824 his *Considerations on Volcanoes*, in which he combated the Wernerian theory of the aqueous origin of all rocks. In 1827 appeared his *Geology and Extinct Volcanoes of Central France*, and at a later date he issued a monograph against Von Buch's theory of elevation craters.

But it was as a political economist that Scrope was most widely known. From 1833 to 1868 he sat in the House of Commons for Stroud, and both in parliament and through the press he inculcated his economic theories. He was known as "Pamphlet Scrope" from the number of his tracts on banking and currency questions, the poor laws, the condition of the agricultural labourers, and various questions of political economy. He was one of the first persons in England to advocate the use of INDEX NUMBERS (*q.v.*).

In 1833 Scrope published an able pamphlet entitled *An Examination of the Bank Charter Question, with an Inquiry into the Nature of a just Standard of Value*. The arguments in this treatise were embodied in his *Principles of Political Economy*, 1833. A second edition of the work appeared as *Political Economy for Plain People*, London, 1873. In this work, ed. 1833, p. 406, Scrope "proposed to correct the legal standard of value, or at least to afford to individuals the means of ascertaining its errors by the periodical publication of an authentic price-current, containing a list of a large number of articles in general use, arranged in quantities corresponding to their relative consumption, so as to give the rise or fall, from time to time, of the mean of prices; which will indicate, with all the exactness desirable for commercial purposes, the variations in the value of money; and enable individuals, if they shall think fit, to regulate their pecuniary engagements by reference to this *Tabular Standard*."

This he proposed should be published "by competent authority." Scrope further argued, p. 423, in favour of "the substitution of the ancient silver standard in use previous to 1773, for the far more vacillating and inconvenient gold standard first established as the *sole* legal standard of value in 1816," considering that "the rejection of silver as our standard of value in conjunction with gold has raised the value of the standard" by about eight per cent.

Many of Scrope's writings had for their object the refutation of "that most pernicious dogma which has long been palmed off on the public as the fundamental axiom of political economy, viz.

'the tendency of population to exceed the procurable means of existence.'" He sought to demonstrate that man's deficiency of subsistence was his own wilful fault, and that in his aggregate capacity he had always had everywhere within reach the sources of an abundant supply for the satisfaction of all his reasonable wants. Scrope's free trade principles were exemplified in such tracts as *Don't Tax, but Untax* (1850); *The Rights of Industry* (1848).

[*Transactions of the Royal Society*, 1876; Jevons's *Investigations in Currency and Finance*, 1884; Scrope's *Principles of Political Economy*, 1833; and his various pamphlets.] d. B. s.

SCUDINO, a gold coin of Modena current in the last century and equal to 9 lire.

[Kelly's *Cambist*, *s.v.*] C. A. H.

SCUDO (from *scutum*, a shield) was the name of various coins, all doubtless springing from the same original, in different parts of Italy. It was in common use during the last century in various principalities, not only as a coin, but also as a money of account. It is found combined with various distinctive expressions, usually indicating use as money of account, *e.g.* scudo d'oro, scudo di cambio, scudo corrente, the complete differentiation of which would require a considerable treatise.

The coin varied in value in different capitals, *e.g.* scudo of Bologna = 4s. 5·6d.; scudo of Sardinia = 3s. 9d. (approximately); scudo of Sicily = 4s. 0d. (do.), and the number of lire which were reckoned to it, varied from 5 to 9 in different principalities.

The scudo was also the original standard of the old Maltese coinage.

The word "escudo," found in Spanish currency, is of exactly the same origin.

[Kelly's *Cambist*, index *s.v.*, *passim*.—Chalmers' *Colonial Currency*, p. 307.] C. A. H.

SCUTAGE. See KNIGHT'S SERVICE.

SCYTHE-PENNY. Supposed to be a payment to the lord of the manor for every scythe; *dabunt etiam denarium pro falce quod Anglice dicunt sithpeni* (*Custumale Roff.*, ed. J. Thorpe, p. 4, *a*). Vinogradoff (*Villainage in Engl.*, p. 291) regards this and similar payments as original taxes, and not as quit-rents or commutation rents. But doubt is raised by the words *qui non habet falcem debet falcatoribus jd.* in the *Custumals of Battle Abbey* (Camden Soc.), p. 89, and similar entries in other records. R. H.

SEARCH, RIGHT OF. A right accorded by general consent of international law to belligerent powers to stop and search vessels sailing under neutral flags on the high seas and in territorial waters. It must be exercised only by commissioned vessels; otherwise it becomes an act of piracy.

This right is considered essential to determine the neutrality of a vessel, and it is a corollary of the right to seize an enemy's property, or any contraband of war.

It is also called "right of visit," sometimes "of visitation."

[See all the treatises on *International Law*, *e.g.* Wheaton, pp. 685-86, and note thereon for authorities, Hall, 4th ed. p. 746.] C. A. H.

SECKENDORFF, VEIT LUDWIG VON (1626-1692), born near Erlangen, the scion of a Franconian family ruined by the religious wars, was leader of the Protestant branch of the Cameralists after the thirty years' war divided into two "confessions" (see GERMAN SCHOOL). As a boy he was received at the court of Duke Ernest of Saxe-Gotha, whose assistance enabled him to study at the university of Strasburg. In 1646 he entered the service of the duke, and gradually rose (1663) to be chancellor. In 1664 he was invited to pass into the service of Duke Maurice of Saxe-Zeitz, where he remained until the duke's death in 1681, when he retired into private life and moved to his estate at Meuselwitz.

He had published in 1656 his famous work *Der teutsche Fürstenstaat*. He now made use of his leisure to finish his supplementary work, *Der Christenstaat* which appeared in 1685. A year later, 1686, he published his *Teutschen Reden*. Seckendorff had been counsellor to princes of all the reigning houses into which Saxony was then divided. In 1692 he was invited by the elector of Brandenburg to undertake the chancellorship of the proposed university at Halle. But he did not live to see the opening of this institution. The title of the "great Seckendorff" given him by his contemporaries, has not been confirmed by later times. Seckendorff had indeed a quick eye for the movements of practical life, but he was no philosopher. His writings are deficient in originality. In the *Fürstenstaat* he confines himself to a brief description of a German state of his time, in order, as he says, to give young statesmen some insight into their duties. He announced that he did not write as a reformer, but merely to give descriptions—the question, which kind of government was the best, appeared to him as a private individual, "too delicate." Notwithstanding the *libertas philosophandi*, he would give no opinion on this point. Seckendorff opened a new era for political science in Germany by writing in his native tongue instead of writing in Latin. He is in this respect the father of scientific terminology in Germany. The expression "state" was first used by him in its modern meaning. He apologised for not having been able to find a better expression. Seckendorff as a teacher holds with Luther. This appears especially in his later work *Der Christenstaat*, where he defended the writings of the reformers against the attacks of Roman Catholicism on the one side, and of atheism on the other side.

The "sovereign" is by right the holder of the secular and the spiritual power, but still, this power is to be neither despotic nor absolute; on the contrary the prince is bounded on two sides, on the one by the emperor, on the other by the estates of the realm. The title "By the grace of God" he might only use in his dealings with

his subjects, not with reference to the emperor. In the matter of taxation (*jus collectandi*) he would levy no impost without the consent of the estates. The main object of public policy is the "numbers of the subjects"; this is regarded as the "true wealth of the country." The government has to see "that all its subjects should, through their industry, find a livelihood." For this all raw material should be worked up in the country, so that the inhabitants should lose no opportunity of employment. Foreign goods, except in the case of an absolutely necessary article, are to be kept out by high duties. Seckendorff, however, did not insist on the theory of the balance of trade. In internal trade the greatest possible freedom of production should prevail, which would cause the reduction and ultimate disappearance of the privileges of corporation of artisans. On the other hand, Seckendorff was strongly in favour of the introduction of compulsory education for the people. Not only was the general prosperity raised by this, it also provided a good weapon for the struggle with evil. Seckendorff was, moreover—and it was very characteristic of him, considering the ideas prevalent in his time, —an opponent of alchemy. He calls it a "rash tempting of God." Only honest labour has been promised a heavenly blessing in the scriptures. The centre of gravity in the *Fürstenstaat* is the discussion as to the sources of income to the treasury. Seckendorff preferred the EXCISE (*q.v.*) to direct taxation. By this, the rich might be favoured more than the poor. But that was no injury to the state, as the well-being of the upper classes caused more employment for the masses.

Besides the works named above, Seckendorff published the following treatises in Latin:—*Schola latinitatis ad copiam verborum et notitiam rerum comparandam, usui paedagogico accomodata*, 1662.—*Justitia protectionis in civitate Erfurtensi*, 1663.—*Compendium historiae ecclesiasticae*, 1666. —*Repetita et necessaria defensio justae protectionis*, 1669.—*Jus publicum Romano-Germanicum*, 1687. —*Commentarius historicus et apologeticus de Lutherianismo, seu de Reformatione*, 1688-1792.

[D. G. Schreber, *Historia vitae ac meritorum Viti Ludovici a Seckendorf*, Lipsiae, 1733.—O. Nasemann, "Veit Ludwig von Seckendorff," *Preussische Jahrbücher*, bd. xii., Berlin, 1863.—W. Roscher, "Zwei Sächsische Staatswirthe im 16. und 17. Jahrh." (Ossa and Seckendorff), *Archiv für sächsische Geschichte*, 1863.—*Geschichte der Nationalökonomie in Deutschland.—Allgem. deutsche Biographie*, bd. 38, 1891.—G. Marchet, *Studien über die Entwickelungsgeschichte der Verwaltungslehre in Deutschland*, 1885.] A. O.

SECRÉTAN, CHARLES (1815-1895) was professor of philosophy in the university of Lausanne, and as a philosopher was held in high repute. His great work, *La Philosophie de la Liberté* (1849), seeks to reconcile reason and religious faith, by showing that the fundamental dogmas of Christianity are the best philosophic explanation of the origin and destiny of man.

As he grew older Secrétan turned his attention to social problems, and devoted himself wholly to these; the reference to him in these pages is taken only from this point of view.

Of his writings on this subject *Civilisation et Croyance* (1887) was the earliest. This treated the question from the side of philosophy. It was followed by more works in a more popular style in rapid succession. *Les droits de l'humanité* (1890)—*Études sociales* (1891)—*Mon Utopie* (1892). Secrétan was an advocate of liberty and opposed to COLLECTIVISM, but he did not rank himself as one of the adherents of the MANCHESTER SCHOOL. While he held that, in principle, liberty should be the only solution of the social question; he also held that in practice this is impossible, because the economic order now existing *is not the product of liberty*. He considered the land as a usurped possession, and that this usurpation—justified as it was in some respects by the advantage resulting to the community — still required as just compensation the recognition of the right of the needy for assistance. He regarded property and the system of labourers' working for hire, etc., as institutions which drew their historical origin from the abuse of the right of the strongest. Hence these cannot be considered as the ultimate stage in human progress, and it becomes necessary to modify the social organisation from its base to bring it into conformity with justice. As Secrétan would not permit, even in order to attain these ends, that anything contradictory to justice should be employed, because "good that is obtained by coercion is no longer good," there are no other means but free association, co-operation, and profit-sharing.

This shows that the doctrines which Secrétan held were very close to those of the Christian Socialists (see CHRISTIAN SOCIALISM), who, half a century since, had so large a share in the co-operative movement in England, and of those who at the present time advocate the nationalisation of the land. Secrétan, however, gave this theory a more original and a more solid character by basing it on solidarity and by showing that solidarity is the real basis of Christianity. Even allowing for the apologetic character of this doctrine, it has none the less exercised a considerable influence over the younger school of economists who take solidarity for their motto (see SOLIDARITY). C. G.

SECURITIES. As ordinarily understood, securities are the written or printed documents which secure to a holder his right to any property. They may include certificates of consols, or any other government or municipal stock; exchequer bonds or bills, foreign government bonds or scrip; railway shares or bonds; and debentures or share certificates of any other companies. As against advances the securities held may also include deeds of freehold or leasehold property, mortgages, dock warrants, bills of lading, or any other

document of title, and bills of exchange. In legal language the term "security" must always have reference to a loan. Thus a trustee who is authorised to invest in real *securities* is entitled to take mortgages but must not purchase land. R. W. B.

SEGNI, GIOVAN BATTISTA (17th century). Was a canon at Bologna. In his treatise on famines, Segni upholds in the most absolute form the *annonario* system of dealing with the food supply, which at the beginning of the 17th century constituted a complete system of political economy. This system, which originated in the desire to provide an abundance of corn, in reality only injured the internal production of the country and absolutely hindered trade.

In his book, written in the form of a dialogue, Segni gives a terrible description of the famine that devastated a great part of Italy in 1602; he attributes this famine principally to the manner in which the corn trade was conducted, this he vehemently attacked. In reality, if the corn merchants did not cause the famine, they often took advantage of the scanty means of transport in those days, and monopolised the corn trade. Segni explains the arrangements adopted at that date by governments to prevent famines, and suggests highly restrictive measures. He would altogether stop trade in the means of subsistence; he would have the bakers buy corn direct from the producers at fixed prices, and would entirely prohibit the export and monopoly of articles of food, and even demands that foreigners who consumed the corn which should serve to feed the inhabitants be expelled from the cities, as was done by the grand-duke of Tuscany in 1590.

Segni's works are inspired partly by principles of ecclesiastical and moral law, partly by the conditions of the times; he invokes energetic action on the part of the state in favour of the poorer classes; asserting that, in times of famine, rulers should compel the rich to distribute their superabundance among the poor. His book is *Trattato sopra la carestia e fame, sue cause, accidenti, provvisioni, reggimenti*, Bologna, 1602.

[Supino, *La scienza economica in Italia*, Turin, Loescher, 1888.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, Milan, Hoepli, 1884.—Graziani, *Le idee economiche, etc.*, Modena, 1893]. U. R.

SEIGNORAGE. Royal revenue obtained by means of charges imposed for coinage.

The word seignorage, also spelt seigneurage, seigneuriage, and seigniorage, is of Norman-French origin. Under the feudal system the right of coinage was an exclusive privilege of the king or seigneur. This personage not unnaturally took the opportunity of exacting a fee when the mint was employed in the coinage of metal belonging to his subjects. The money thus raised was retained by the king for his own use, and it was to this portion of the royal income that the title seignorage was applied.

The seignorage charge varied considerably from time to time, being apparently governed not so much by the exigencies of trade, as by the sovereign's wants, avarice, or caprice. A high charge for coinage, however, deterred merchants from sending bullion to the mint, but this difficulty was often surmounted by the issue of a proclamation calling in for recoinage the coins already in circulation, thus necessitating a new issue. Such recoinages caused much inconvenience, and in some instances the king was induced to adopt an alternative method of increasing his revenues, namely, the imposition of a triennial tax called *moneyage*, on the understanding that frequent and unnecessary recoinages should not be insisted upon. Moneyage does not appear to have been exacted in England before the time of William the Conqueror, and it was abolished as early as the reign of Henry I.

The total amount paid by merchants for the privilege of having their bullion converted into coin, was the sum of two charges, one of which went to the king, and the other to the officers of the mint. The first was the *seignorage*, the second the BRASSAGE, but as this latter term has never been generally used in England, it seems preferable to refer to it under the head of *mint-charge* (see MINT) or charge for coinage.

These two charges were fixed at a sum per pound calculated on the gross weight of coin produced from the bullion sent in, and their amount was collected by a deduction from the coin delivered to the merchant. Thus we find that in the reign of Edward III. (1345) the deduction made at the mint from gold coins delivered to the public was at the rate of £1 : 3 : 6 per lb., of which £1 went to the king as his seignorage, and 3s. 6d. to the mint to defray the cost of coinage. In the same year the charge for coining silver was fixed at 1s. 3d. per lb., of which 9d. went to the officers of the mint, and 6d. to the exchequer.

The total sum collected in charges at the mint is frequently referred to as the seignorage, and this use of the word can be upheld on the ground that both charges were fixed under the authority of the king, either by act of parliament or mint indenture, and that the subsequent division of the money between the sovereign and the officers of his mint is a matter of but slight importance. On the other hand it seems more correct to restrict the use of the word seignorage to that portion of the revenue derived from coinage which actually formed a part of the king's income. The latter view is supported by the following quotation from a statute of the ninth year of Henry V. c. 2, in which the charges collected at the mint are expressly stated as covering both the coinage *and* seignorage charges. This act directed that persons bringing worn coin to the mint "should within eight days receive the full value of what they brought, paying for the seignorage and coinage of gold after the rate of 5s. for the pound of the

Tower, and for the seignorage and coinage of silver fifteen pence for the pound and no more."

The revenue directly raised by the seignorage charge was at various times supplemented by one or both of the following means: (*a*) the use of the Tower pound; and (*b*) advantage taken of the Remedy, or Shere, allowance to issue coins uniformly short of their full legal weight (see REMEDY).

The Tower pound was equal in weight to 11 oz. 5 dwt. troy, so that 16 lbs. Tower = 15 lbs. troy. Metal sent to the mint for coinage was received by troy weight, but given out to the coiners by Tower weight. The legal number of pieces per pound was then coined from this diminished weight of metal. The king thus added to his revenue a sum equal to the value of one-sixteenth of all the metal brought to the mint for coinage, while he derived the same amount from the seignorage charge as if the coin had been weighed and delivered by troy weight, this charge being based upon the number of *Tower* pounds of coin produced. The use of the Tower pound in the mint was abolished in 1527 by a proclamation of Henry VIII.

The various rates of seignorage from the year 1345 onwards are given by Ruding, in his *Annals of the Coinage*, and the maximum and minimum charges imposed by each sovereign, which are set forth in the annexed table, have been taken from that record:—

MINT CHARGES ON THE COINAGE OF GOLD.

Reign.	Year.	Amount deducted per Pound. For Seignorage. Highest. £	s.	d.	Lowest. £	s.	d.	For Mint Expenses. £	s.	d.	Total. £	s.	d.
Edward III.	1345	1	0	0	..			0	3	6	1	3	6
" "	1357	..			0	5	6	0	1	2	0	6	8
Richard II.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry IV.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry V.	..	0	3	6	0	3	6	0	1	6	0	5	0
Henry VI.	1446	..			0	3	6	0	1	6	0	5	0
" "	1461	0	10	6	..			0	2	6	0	13	0
Edward IV.	1465	2	7	8	..			0	2	4	2	10	0
" "	1483	..			0	5	0	0	2	6	0	7	6
Henry VII.	1488	0	5	0	..			0	2	6	0	7	6
" "	1489	..			0	0	8	0	1	10	0	2	6
Henry VIII.	1509	..			0	0	8	0	1	10	0	2	6
" "	1546	5	2	0	..			..			5	2	0
Edward VI.	..	1	10	0	..			..			1	10	0
"	..	..			0	2	9	..			0	2	9
Elizabeth	1558	..			0	4	0	..			0	4	0
"	..	0	5	3	..			0	4	9	0	10	0
James I.	1613	1	19	0	..			0	6	0	2	5	0
" "	1620	..			0	15	0	0	6	0	1	1	0
Charles I.	1627	0	15	0	0	15	0	0	6	5	1	1	5
Commonwealth	..	0	12	7	0	12	7	0	2	5	0	15	0
Charles II.	..	Free coinage introduced.									..		

Seignorage and coinage charges on both gold and silver were abolished by the act of 18 Charles II. c. 5, and all further possibility of profit from coinage operations seemed to be at an end. On this point Ruding writes: "We know that the coinage act which was originally passed in the eighteenth year of Charles II., and was made perpetual by the 25th chapter of a statute in the ninth year of George III., has deprived the state

MINT CHARGES ON THE COINAGE OF SILVER.

Reign.	Year.	Amount deducted per Pound. For Seignorage. Highest. £	s.	d.	Lowest. £	s.	d.	For Mint Expenses. £	s.	d.	Total. £	s.	d.
Edward I.	1280	..			0	0	5	0	0	7	0	1	0
" "	1300	0	0	9	..			0	0	5½	0	1	2½
Edward III.	1350	0	0	9	..			0	0	6¾	0	1	3¾
" "	1357	..			0	0	2¾	0	0	6¼	0	0	9¼
Richard II.	1395	0	0	1	0	0	1	0	0	7	0	0	8
Henry IV.	1403	0	0	3	0	0	3	0	0	7	0	0	10
Henry V.	1412	0	0	3	0	0	3	0	0	9	0	1	0
Henry VI.	1428	0	1	2	..			0	0	10	0	2	0
"	1445	..			0	0	3	0	0	9	0	1	0
Edward IV.	1465	0	3	4	..			0	1	2	0	4	6
" "	1472	..			0	0	6	0	1	0	0	1	6
Henry VII.	1488	0	1	6	..			..			0	1	6
" "	1489	..			0	0	2	0	0	10	0	1	0
Henry VIII.	1509	..			0	0	2	0	0	10	0	1	0
"	1545	2	0	0	..			..			8	0	0
Edward VI.	1552	8	8	0	..			..			2	8	0
" "	1553	..			0	1	0	..			0	1	0
Mary	..	0	1	0	0	1	0	..			0	1	0
Elizabeth	1577	0	0	10	..			0	0	8	0	1	6
"	1601	..			0	0	8	0	1	4	0	2	0
James I.	1605	0	1	2	0	1	2	0	1	4	0	2	6
Charles I.	1627	0	0	10	0	0	10	0	1	2	0	2	0
Charles II.	1660	0	0	6	0	0	6	0	1	6	0	2	0
" "	..	Free coinage introduced.									..		

of all possibility of profit from the mint, while on the other hand we possess from undoubted authority accounts of the expenses of working the same, commencing from the beginning of the year 1777."

From 1666 to the present time (1898), the coinage of gold in England has been undertaken by the state free of charge (see FREE COINAGE), an importer of bullion to the mint receiving gold coin of precisely the same value as that of the metal sent in. Not only, therefore, has seignorage on the gold coinage ceased to exist, but all expenses of the manufacture of these coins have been borne by the state for the last 230 years; while since 1891, the whole cost of the loss due to the wear and tear of gold coin in circulation has also been defrayed by the government [see LIGHT GOLD AND SILVER COIN, WITHDRAWAL OF.]

Gold was adopted as the standard of value, and gold coins became the "only legal tender" to an unlimited extent, by the act of 1816 (56 Geo. III. c. 68). Section 9 of this act, however, also granted power to the king to issue a proclamation appointing a day after which silver coin and bullion might be brought to the mint to be coined at the rate of 66s. per lb. troy of standard silver, of which 62s. were to be returned to the importer of the bullion, and 4s. retained by the mint. Section 10 enacted that sums of money arising from this allowance of 4s. per lb. "shall in the first place be applied in and towards the payment of the expenses of the coining of such silver, and the surplus thereof (if any) after the payment of such expenses shall be carried to and made part of the consolidated fund." Thus, after a lapse of 150 years, statutory provision was made by which, in given circumstances, seignorage on the silver coinage might have accrued. The proclamation, however,

upon which this revival of seignorage would have been based was never made, and no coinage of silver on behalf of private persons has been undertaken since the adoption of the single gold standard. That change in the currency system of the country necessarily relegated coins of any metal other than gold to the position of tokens, though the inclusion in the act of 1816 of the above provision for the coinage of silver seems to indicate that this fact was but imperfectly realised at the time. Now, however, owing to the great fall in the price of silver, no further demonstration of the subsidiary function performed by the silver currency is needed than the mere fact that the metal contained in the coins is of less than half the value at which they circulate, and that this is so not only without loss to individual holders of the coins, but with great gain to the national exchequer.

Profit derived from the difference between the nominal and currency values of token coins is dependent in amount upon the market price of the materials of which the pieces are composed, and is not a seignorage resulting from any royal charge for coinage. It seems open to question, therefore, whether the use of the word seignorage can be justified in connection with any revenue obtained from coinage since 1666. Nevertheless, the title has been generally applied to the profit on the token silver coinage, and has for many years been used in this sense in official documents. It is interesting, however, to notice that at the same time the gain to the state on the coinage of bronze, accruing in a precisely similar manner to that on the silver coinage, has never been referred to as anything other than "profit."

On the 25th August 1895, a statement was made in the House of Commons by the parliamentary secretary of the treasury, to the effect that "perhaps it" [the use of the word seignorage] "is not wholly justifiable for a token coinage." Since that date the word profit has appeared in mint reports in many places where seignorage was formerly used, and it now seems likely that the profit on the modern token silver currency will no longer be referred to as seignorage. In view, however, of the long period during which this use of the word has prevailed, a table is here appended showing the amount of revenue derived from the issue of token silver coins since the year 1861 :—

SEIGNORAGE (PROFIT) ON THE COINAGE OF TOKEN SILVER, 1861-96.

Period.	Profit on the coinage of silver.			Average price per ounce of standard silver.
	Total.	Annual average.	Rate of profit per cent.	
	£	£		pence.
1861-70	153,162	15,316	6·4	60·9
1871-80	531,868	53,187	18·1	55·9
1881-90	2,149,486	214,919	38·6	47·6
1891	253,387	348,899	45·6	45·1
1892	215,137		65·8	39·8
1893	370,456		81·7	35·6
1894	348,645		125·6	29·0
1895	403,903		117·3	29·9
1896	476,866		117·7	30·7

[ABRASION; ALLOY; BRASSAGE; CLIPPED MONEY; COINAGE, THE RIGHT OF; DEBASEMENT OF COIN; FINENESS OF COINS; FREE COINAGE; GARBLED COIN; GOLD; INGOT; JOURNEY (*Mint*); LIGHT GOLD AND SILVER; MINT; MINT PRICE OF BULLION; MINTAGE, FREE; MONEYERS; REMEDY.]

F. B. A.

SEIGN PRIVÉ. Written documents, embodying contracts or promises in countries governed by French law, are divisible into two classes, being respectively called *actes authentiques*, and *actes sous seign privé*. An *acte authentique* must be executed before a public notary, whilst an *acte sous seign privé* is binding if signed by the party or parties liable under the contract or promise without any further formality. Deeds of gift, marriage contracts, and mortgages are invalid unless they are evidenced by an *acte authentique*, but mercantile contracts may be validly made by *acte sous seign privé*, and in many cases even by word of mouth.

[Code Civil, §§ 1317-1321, 1322-1332, 1834; Code de Comm. § 109.]

T. L.

SEISIN. The possession of a freehold estate in land, *i.e.* of a fee simple, of a fee tail, or of a life estate. The doctrine of seisin and the principles connected with it enter deeply into the law of real property in England.

[Challis on *Real Property*, London, 1892.—Maitland, "The Beatitude of Seisin," *Law Quarterly Review*, vol. iv. pp. 24 §§, 286 §§.]

J. E. C. M.

SELF-INTEREST. The importance which economic writers have attached to self-interest as a source of economic activity has changed from time to time.

T. MUN recognised it in the well-known passage in which he distinguishes between "the gain of the kingdom, and the profit of the merchant," and suggests a possible antagonism between these and the treasure of the king. (*England's Treasure by Foraign Trade*, London, 1664, ch. iii.).

Defoe (*Mercator*, No. 27, London, 1713) states clearly that "Gain is the Design of Merchandise: Trade is a Commutation of Merchantable Commodities between one Country and another, and for the mutual Profit of the Traders. The Language of Nations one to another is, *I let thee gain by me that I may gain by thee.*

This very definite recognition of the power of self-interest was not confined to English writers. TURGOT, writing of GOURNAY in 1759, said "Tout ce prétendu *système* était appuyé sur cette maxime, qu'en général tout homme connaît mieux son propre intérêt, qu'un autre homme, à qui cet intérêt est entièrement indifférent" (Turgot, *Œuvres*, Paris, 1844, 2 vols. p. 270), and Turgot himself said "La morale et la politique dépendent de l'amour de soi, réglé par la *justice*" (Neymarck, *Turgot et ses doctrines*, Paris, 1885, vol. 2, p. 28).

There has been much controversy as to how

far Adam SMITH based his *Wealth of Nations* on this doctrine. He attributes great importance to a love of barter, innate in mankind, but proceeds immediately to point out that the barter can only be affected by an appeal to either affection or self-interest, and maintains that the latter is probably the more effective; "He will be more likely to prevail if he can interest their self-love in his favour and show that it is for their own advantage to do for him what he requires of them" (*The Wealth of Nations*, 1776, bk. i. ch. ii.). In another place he wrote, ten years earlier, "Regard to our own private happiness, and interest too, appear upon many occasions very laudable principles of action; attention and application of thought are generally supposed to be cultivated from self-interest motives" (*Theory of Moral Sentiments*, 1766, p. 336). An excellent summary of the discussion on Adam Smith's dependence on the doctrine is given by Prof. Hasbach in his article on Adam Smith, *Political Science Quarterly*, December 1897.

WHATELY bases the theory elaborated in his lectures at Oxford in the year 1833 entirely on the foundation of self-interest. Quoting Archbishop Sumner, he says: "The first, who having enclosed a plot of ground, has taken upon himself to assert, *This is mine*, and has remained undisturbed in possession of it, gives a new aspect to society" (*Lectures on Political Economy*, London, 1855, lecture vi.). This supreme belief in the universality of the doctrine was eminently characteristic of the economists of that time; every one appears to have accepted it as unquestionable in spite of the criticisms of CARLYLE. His essay in the *Edinburgh Review* in 1829 was an attempt to shake the universal faith, a severe criticism of the prevalent belief.

J. S. MILL began with a more or less complete acceptance of the universality of the doctrine, but under various influences he gave it up gradually in later life. It is noteworthy that in his *Principles* he attempts to argue the case for LAISSEZ-FAIRE, based on "the popular dictum that people understand their own business and their own interests better, and care for them more than the government does, or can be expected to do." However, in a later portion of his work he practically abandons the position and admits large provinces of social life which may advisedly be regulated by government. Professor Edgeworth's article on J. S. MILL (vol. ii: p. 756) may well be consulted.

Since Mill's time the doctrine has developed in two directions. The altruistic school (see ALTRUISM) appear to attach more weight to the pleasure derived from observing enjoyment in others than to that derived from individual enjoyment. The hedonistic school (see HEDONISM) attempt to establish a calculus of pleasure to the individual. At present no satisfactory means has been suggested whereby the gulf between the individual and the community may be bridged (see Edgeworth, *Mathematical Psychics*, 1882).

It should be observed that it is one thing to take self-interest as the principle on which society is founded, and work this out as some economists have done; another to assert that society is actually composed of people who live for self-interest and nothing else. The hypothetical character of the principle was quite clearly seen by some economists, though not by others. Popularly it was supposed that economists meant it as actual. Had they made their meaning clear, "they would have escaped many grievous misrepresentations. The splendid teachings of Carlyle and Ruskin as to the right aims of human endeavour and the right uses of wealth, would not then have been marred by bitter attacks on economics, based on the mistaken belief that that science had no concern with any motive except the selfish desire for wealth, or even that it inculcated a policy of sordid selfishness" (Prof. Marshall, *Prin. of Ec.*, 2nd ed. 1891, p. 76).

[During the last quarter century many writers, JEVONS, CAIRNES, F. A. WALKER, Sidgwick, Marshall, and others have criticised the doctrine and contributed to its elucidation. These contributions will be found summarised in Walker's *Political Economy*, § 16, London, 1887; and, for influence of Hegel, Bonar, *Philos. and Pol. Econ.* ch. iv.]

J. M'K.

SELKIRK, THOMAS DOUGLAS, FIFTH EARL OF (1771-1820), Baron Daer and Shortcleugh in the Scotch peerage, was the seventh and youngest son of the fourth earl, and the intimate friend of Sir Walter Scott.

His unexpected accession to the earldom in 1799 enabled Selkirk to contemplate the realisation of those long-matured plans of colonisation which had resulted from a personal study, in 1792, of the social and economic evils from which the small Highland tenantry were suffering. Undismayed by the lukewarmness of the government, Selkirk secured the island of St. John in the gulf of St. Lawrence (now Prince Edward's Isle) and in the summer of 1803 established there a colony of 800 selected emigrants. He himself visited them more than once. In 1805 he was obliged to defend himself against the calumnious reports as to his colonising motives; and to this end he published his previous conclusions under the title of *Observations on the present state of the Highlands of Scotland, with a view of the causes and probable consequences of Emigration* (London, 1805, 8vo, 2nd ed., Edinburgh, 1806). He ascribed the economic distress and discontent of the cottars, crofters, and tacksmen to the disbanding of the clans after the '45, with the inevitable and consequent dissolution of the ancient feudal tie between the landlord and his free tenant whose war service and partisanship had hitherto been accepted in full quittance of rent.

Side by side with the upbreaking of these relations came the change in the agricultural aspect—the substitution of pasture for cornland caused precisely that demand for cattle-grass

which the Highland landlord was well able to supply. Consequently the landlord's choice was limited: either to sharing the poverty of his tacksmen and cottar tenantry or to dispossessing them in favour of the well-to-do graziers who bid for his farms. The eviction of the old tenantry was socially dangerous and economically embarrassing, and it was for the better class of these Highland-bred peasants, indisposed by training to the irksomeness of industry and a town life, that Selkirk sought to find an outlet in emigration. The author (p. 116) quotes Malthus in support of his theory that emigration is no bar to permanent population. Referring to the bill of 1803 for the transport of emigrants, he finds the Highland Society's report of the causes of emigration to be:—(1) over-population; (2) the removal of tenants from farms; (3) the seductive accounts of the advantages to be gained in America. The book closes with an account of the planting and progress of Selkirk's own colony.

In 1806-7 Selkirk was chosen one of the sixteen representative Scotch peers. Among his various parliamentary speeches that of 10th Aug. 1807, *The Defence of the Country*, was immediately published in pamphlet form, second ed. same year. He advocated the encouragement of the volunteer establishment, side by side with a new local militia, in a volume *On the Necessity of a more effectual System of National Defence*, London, 1808, 8vo; republished by Sir J. Wedderburn, London, 1860, 8vo. In 1809 Selkirk wrote and published a *Letter addressed to J. Cartwright, Esq., on the subject of Parliamentary Reform*, 1st and 2nd ed., London, 1809, 8vo; another ed. Manchester, 1816, 12mo.

But Selkirk did not allow political controversies to divert him from his great colonising plans. In 1810, having by his large purchase of stock practically acquired the directorate of the Hudson's Bay Company, he applied for a further grant of land, which he proceeded to colonise. His settlers, however, came into violent contact with the North-West Company's people, and after a territorial warfare of many years, Selkirk himself had to take a body of men to their rescue. The victory cost him dear, and, worn out by troubles and annoyances, he retired to the south of France, where he died. His settlement is now represented by the province of Manitoba, where his name survives in the town and county of Selkirk.

Besides the works mentioned above, Selkirk published *A Sketch of the British Fur Trade in North America, with Observations relative to the north-west Coast of Montreal*, London, 1816, 8vo. A. L.

SELLA, QUINTINO (1827-1884), was born at Mosso (Biella-Piedmont). A manufacturer like the rest of his family, he was also an eminent geologist, skilled in mineralogy, an orator, a financier, and a statistician. He was a deputy; minister of finance for the kingdom of Italy in 1862, from 1864 to 1865, and again from 1869 to 1873. His work as minister of finance, in most critical times, has left traces which still survive.

A supporter of strict and rigid finance, he was not afraid of facing unpopularity; he converted the tax on grinding corn into a powerful instrument of financial improvement (see MACINATO), and employed the *corso forzoso* as a temporary method, painful but necessary, of avoiding loss in payment of interest on loans raised for useful purposes. Through his efforts the Italian budget was made to balance. Italy owes her post-office savings banks and the increase of professional schools to Sella.

Sella left behind him many scientific works; his numerous parliamentary speeches, collected in five volumes, are of economic and financial importance. *Discorsi parlamentari di Quintino Sella*, raccolti per ordine della camera dei deputati, Rome, 1887-90.

[See Alessandro, Guiccioli *Quintino Sella*, Rovigo, 1887]. U. R.

SEMPERE Y GUARINOS, JOSÉ (1754-1839), Originally royal attorney in the high court of chancery in Granada, and member of the council of finance, he took an active part in the political events of 1812, and was compelled to leave Spain after the restoration of king Ferdinand VII. He then remained about fifteen years in Bordeaux.

His *Biblioteca Economico-Política* (Madrid, 4 vols., 1804-1821) gives extracts from the most important old Spanish writers on economic subjects from the 15th to the end of the 17th century, besides some contributions of his own on the poor, the Spanish poor laws, etc. A learned economic historian of his country, his best-known works are his *Historia del Lujo y de las Leyes Sumptuarias de España* (History of the Spanish sumptuary laws), Madrid, 1788, and the *Historia de los Vinculos y Mayorazgos* (History of Entails and Majorates), Madrid, 1801. His views on economic reform may be described as those of a liberal, admitting the necessity of reform, but desiring to proceed with caution. E. CA.

SEN, a Japanese coin, the hundredth part of a yen (see YEN).

SÉNAC DE MEILHAN, GABRIEL (1736-1803), *intendant* of several provinces of France in succession, was put at the head of the general commissariat of the army in 1775, but soon lost this high position. During the revolution he retired to Russia, where he received a pension from the Empress Catherine; at her death he settled first in Venice, then in Vienna, where he died.

His book *Considérations sur les richesses et le luxe* (Paris and Amsterdam, 1780 and 1787), was mainly directed against the abbé Terray and NECKER. Brilliantly written, but rather superficial, this work wants depth and precision.

[On Sénac as an official, see Legrand, *Sénac de Meilhan et l'intendance du Hainaut et du Cambrésis sous Louis XVI.*, 1868]. E. CA.

SENECA, LUCIUS ANNÆUS, son of Marcus Annæus Seneca the rhetorician, born about 4 B.C. He was tutor to Nero, and afterwards one of

his chief advisers. Though he used his position to obtain vast wealth, it is believed that he was a restraining influence over the emperor. New favourites, however, machinated against him, and he retired from Rome; but being suspected of complicity in Piso's conspiracy, he was forced to kill himself in A.D. 65. In addition to ten tragedies, many of his philosophical and moral treatises are extant, as are also a series of letters on varied subjects, from which valuable hints may be gathered as to the rural and urban industries and the economic condition of the Roman empire at a period of extreme luxury. He developed the Tironian shorthand, as to which see the *Notae Tironis et Senecae* in the appendix to Gruter's *Inscriptiones Antiquae*, 1603. A good text of his prose works is supplied by Haase (Teubner, 1872). R. H.

SENEUIL, JEAN GUSTAVE COURCELLE-, (1819-1892), Seneuil being only the additional name taken from his native place in the department of the Dordogne, studied law in Paris and was admitted to the bar in 1835, but returned to his native province in order to manage iron works; at the same time, owing to his friendly relations with the leaders of the republican party under Louis Philippe, he became an active contributor to their newspapers. During the second republic he was for a short time director of the public domains; after Prince Napoleon's *Coup d'État*, he went over to South America, where he lectured for several years on economics in Santiago de Chile. He returned to France in 1863, and was made a councillor of state under the third republic.

His *Traité théorique et pratique d'économie politique* in two volumes was first published in 1858; a second edition was issued in 1867. Courcelle is certainly one of the most thoughtful and scientific among French economists, he is put by JEVONS in the class of those "who have not at all attempted mathematical treatment in an express or systematic manner, but who have only incidentally acknowledged its value by introducing symbolic or graphical statements" (Preface to the 2nd ed. of the *Theory of Pol. Econ.*). One of these, for instance, he applies to the law of population (vol. i. p. 120, ed. 1867). Courcelle rejects none of the methods in use, and in another work (*Préparation à l'étude du droit*, p. 365) he declares that the inductive and deductive, analytical and synthetical, historical and experimental methods are all to be used within properly determined and rational limits. The most striking feature of his *Traité* is the rigid division he maintains between theoretic economics or PLUTOLOGY, and applied economy or *ergonomy* (see APPLIED ECONOMICS); to several branches of the latter he devoted special works, the *Traité théorique et pratique des entreprises industrielles, commerciales, et agricoles* (1854), and his *Traité théorique et pratique des Opérations de Banque* (1852), a seventh edition of which has recently been reprinted under the supervision of M. André Liesse (1896). Another characteristic feature of the theoretical part of his *Traité d'écon. pol.* is that he studies the *production* of wealth in strict interdependence with its *consumption*, making man rather than wealth the central object of his investigations, although giving an ample space in the second subdivision of vol. i. to its *distribution* or *appropriation*. On the whole, Courcelle belongs to the liberal school; for instance, he is in favour of the unlimited liberty of banks, but he admits practical derogations from his principle, such as public assistance on a local basis, and is against all abrupt passages from the system of authority to the system of liberty.

He always took a lively interest in social and political questions (*Études sur la science sociale*, 1862; *Liberté et socialisme*, 1868; *L'héritage de la Révolution*, 1871; *La société moderne*, 1892); writing from the standpoint of an independent and discriminating adherent of Republican doctrines, he never condescends to curb his own independent judgment before the *idola* of the tribe. He translated into French, Graham Sumner's *Duties of Social Classes;* and with Dussard, J. Stuart Mill's *Principles of Political Economy*. He wrote numerous articles in the old and new *Dictionnaire d'économie politique*, and was for almost half a century an active and untiring contributor to the *Journal des économistes*.

[The best general account of his career will be found in M. Juglar's *Notice sur la vie et les travaux de J. G. Courcelle-Seneuil*, read before the *Académie des sciences morales et politiques*, of which Courcelle had been a member. See also *Journal des économistes*, July 1892, pp. 73-81.]

E. Ca.

SENIOR, WILLIAM NASSAU (1790-1864), was called to the bar in 1819. In 1825 he was appointed to the newly-constituted Drummond chair of political economy at the university of Oxford. He was a member of the royal commission of 1832, to whose labours is mainly due the reform of the poor law (see POOR LAW). In 1836 he was made a master in chancery. From 1847 to 1852 he served a second term of office as professor at Oxford. He was also examiner for political economy at the university of London, and presided over the economic section of the British Association at their meeting in Oxford in 1860. Although Senior's economic writings were not large in bulk, their influence has been considerable. He was the first distinctly to formulate the ABSTINENCE (*q.v.*) theory of capital. Adam SMITH and RICARDO had taught that labour alone creates value; LAUDERDALE had asserted for capital an independent productive power, and MALTHUS had explained profit as a constituent part of the costs of production. Senior recognised that it was impossible to square either the first or the last view with facts, while capital could not be a simple original instrument, inasmuch as it was itself the result of the co-operation of labour, natural agents, and abstinence. Abstinence is defined as "that agent, distinct from labour and the agency of nature, the concurrence of which

is necessary to the existence of capital, and which stands in the same relation to profits as labour does to wages." Senior himself expressly states "mere abstinence can produce nothing." By abstinence he meant such a postponement of immediate gratification as may allow the law of INCREASING RETURNS (*q.v.*) to operate. This law that the power of the instruments which produce wealth may be indefinitely increased by using their products as the means of further production, is stated to be among the four elementary propositions of political economy, which are "the result of observation or consciousness." It is in the field of actual capitalist production that the explanation must be sought of Senior's views. The exchange value of goods depends partly upon their usefulness, partly on the limitation of their supply. Where monopoly does not come in, the limit of supply is regulated by the sacrifice involved in their production. The costs of production must be divided into the costs of production of the seller, and the costs of production of the purchaser. These latter are "the amount of the labour and abstinence which must be undergone by those to whom a given commodity or service is offered for sale, if, instead of purchasing, they themselves . . . were to produce it" (Senior, *Pol. Econ.* ed. 1854, p. 101). We thus find that the costs of production of the seller are equal to the minimum and those of the buyer to the maximum of price. Abstinence must then always be a constituent part of the costs of production, and the value of goods must be great enough to leave a compensation for this abstinence. (For a statement and criticism of Senior's position, see Böhm Bawerk, *Capital and Interest*, trans. by W. Smart, 1890, bk. iv. ch. i. and ii.). It would thus seem clear that Senior must be ranked with the "cost of production" school of political economists, and not with the "utility" school (see EXCHANGE, VALUE IN, HISTORY OF THEORY). Although his general definition of value as depending upon utility and limitation of supply appears to be pointing to the conclusions of the later school (cp. Léon WALRAS's definition of value as the "rare," *i.e.*, what is both useful and limited in quantity. *Éléments d'économie politique*, 1874; and *Théorie de la Monnaie*, 1886) Senior is not included in the bibliography of writers leading the way to Jevons's theories contained in the 1879 ed. of Jevons's *Theory of Political Economy*.

Mention has been already made of the law of increasing returns as stated by Senior. The contrast between the DIMINISHING RETURNS (*q.v.*) of agriculture and the increasing returns of manufacturers had been noticed by previous economists, but it was elaborated by Senior. The theory was in great measure a generalisation from the leading position of England in commerce and industry in the middle of the century. "The only check by which we can predict that the progress of our manufactures will in time be retarded is the increasing difficulty of importing materials and food." Granted, however, the truth of the view, which modern economists will only admit under serious limitations (see INCREASING RETURNS), the argument it lends to the fostering of home industries is at once apparent. In his *Letters on the Factory Act*, Senior himself had said "the more our rivals produce the cheaper they will be able to produce"; and it may plausibly be maintained that protection to native industries is justifiable to give the law of increasing returns time to come into force (see Prof. Marshall's *Presidential Address at the Economic Section of British Assoc.*, 1890).

On the theory of INTERNATIONAL TRADE (*q.v.*) Senior, in his *Lecture on the Cost of Obtaining Money*, took the first step beyond RICARDO. "The portableness of the precious metals and the universality of the demand for them renders the whole commercial world one country, in which bullion is the money, and the inhabitant of each nation forms a distinct class of labourers" (see C. F. Bastable, *Theory of International Trade*, 1887). On the question of the WAGES FUND (*q.v.*) Senior occupies a half-way position between the view of a fixed wage fund and more modern theories on the subject. It appeared to him almost self-evident that wages depend upon the extent of the fund for the maintenance of labourers compared with the number of labourers to be maintained; but this view does not amount to a statement of the wage-fund theory, because the principal means by which the fund for the maintenance of labourers can be increased is by increasing the productiveness of labour (see E. Cannan, *History of Theories of Production and Distribution*, 1893). Senior was the first English economist who definitely formulated principles of economic method. After recognising in his *Introductory Lecture*, 1826, a practical side to political economy, Senior in his *Outlines* regarded it exclusively as a theoretical, abstract, and deductive science. It is a science not an art, and its conclusions are theorems of fact not precept (see *The Scope and Method of Political Economy*, by J. N. Keynes, 1891). Those conclusions are not hypothetical. So far as they relate to the nature and production of wealth they are universally true, and, although those which relate to distribution are affected by disturbing causes, the natural state of things can be laid down as the general rule, and anomalies can be afterwards accounted for. The more advanced state of society may fairly be called the natural. "A situation of society, if it can be called society, without the intervention of exchanges, neither deserves nor requires scientific investigation." It was this side of Senior which doubtless led Professor Bastable (in his *Presidential Address to the Economic Section, British Assoc.*, 1894) to speak of Senior as the typical representative of the strong and weak points of the

English orthodox school of political economists, "undue insistence on the omnipotence of purely material motives, a somewhat cynical disregard of the moral forces that influence human action in respect to wealth, and a certain love of paradox." But, in fact, at the age of five-and-twenty Senior formed the determination to reform the condition of the poor of England. He expressly states at the beginning of his course *On the rate of Wages* that inasmuch as "the labourers form the mass of every community, the inquiry into the causes affecting wages is the most important branch of political economy," and, in striking contrast with his theory, he everywhere displays a close grip of contemporary fact, and a power of pertinent illustration, which recall the writings of Bagehot. He is found continually quoting the evidence of practical men. His dislike of trades unions and combinations, and the drastic measures with which he proposed to combat them (Webb, *History of Trades Unionism*, 2nd ed., 1896, p. 124), were due not to any *à priori* theory as to wages, but to the actual cases of intimidation which had come under his notice when sent to investigate the facts by Lord Melbourne in 1830. (His report was never published, but the substance of it is embodied in vol. ii. of Senior's *Historical and Philosophical Essays*, 1865) In the same way the curious statement (*Letters on the Factory Act*) that the whole net profit in cotton factories was "derived *from the last hour*," was founded on an analysis of actual returns, and were in no way the issue of mere theory. Upon the whole it is clear that his views in favour of *laissez-aller*, *laissez-faire* (see LAISSEZ-FAIRE) were based rather on his experience of the working out of a contrary system in the case of the old poor law, and of the corn laws, than on any doctrinaire or cynical bent in Senior's own method of regarding things. In actual life Senior was a busy lawyer, and man of affairs, to whom economic studies were of necessity more or less of a "parergon." Under the circumstances it is surprising that he should have achieved as much as he did in advancing political economy. Apart from this the merit of his work is found in the practical improvement of the life of the people silently and steadily carried out.

Besides numerous works in the province of politics and belles lettres, Nassau Senior was the author of *An introductory lecture on Political Economy, delivered before the University of Oxford the 6th Dec. 1826*, London, 1827, 8vo.—*Three lectures on the transmission of the Precious Metals and the Mercantile Theory of Wealth, delivered in June 1827*, London, 1828, 8vo.—*Two Lectures on Population, delivered in Easter Term 1828, to which is added a correspondence between the Author and the Rev. T. R. Malthus*, London, 1831, 8vo.—*Three Lectures on the cost of obtaining Money, and of some effects of Private and Government Paper Money, delivered in Trinity Term 1829*, London, 1830, 8vo.—*Three Lectures on the rate of Wages delivered in Easter Term 1830, with a Preface on the Causes and Remedies of the present Disturbances*, London, 1831, 8vo.—In 1836 there was published in Paris, *Principes fondamentaux de l'économie politique tirés des leçons édites et inédites de N. W. Senior*, by J. Arrivabene, 8vo. This book contains six of the published lectures, viz. the introductory one, enlarged and modified, the three on the transmission of the precious metals, and the two on population, together with the substance of nine MS. lectures furnished by Senior to the French editor. The whole forms a more methodic work than do the separate English lectures.

In 1836 Senior contributed "An outline of Political Economy" to the *Encyclopaedia Metropolitana*, which was republished in 1850, London, 8vo.—*Four introductory Lectures delivered before the University of Oxford*, appeared London, 1852, 8vo.—On the poor law, Senior wrote: *A letter to Lord Howick on a legal provision for the Irish Poor*, 3rd. ed., with a preface *Containing suggestions as to the measures to be adopted in the present emergency*, London, 1832, 8vo.—*Statement of the Provision for the Poor . . . in a considerable portion of America and Europe, being a Preface to the Foreign Communication contained in the Appendix to the Poor Law Report*, London, 1835, 8vo.—*Remarks on the opposition to the Poor Law Amendment Bill*, by a guardian, London, 1841, 8vo.—Senior also published *Letters on the Factory Act as it affects the Cotton Manufacture*, London, 1837, 8vo, and contributed an able summary of the ambiguities in the terms of political economy to Whateley's *Logic*, showing the very serious effect on the national welfare which has sometimes resulted from these ambiguities.

[*Annual Register*, 1864, p. 203; see also ref. to Senior in art. on POLITICAL ECONOMY.]

H. E. E.

SEPARATE ESTATE. At common law a married woman could not take or enjoy real or personal estate independently of her husband. The courts of equity, however, laid down the doctrine that a wife could hold real and personal estate as if she were unmarried, and such estate came to be called separate estate. The power to hold separate estate may be reserved to a wife by marriage articles, or an actual settlement made before marriage, and may be conferred by a will. All that is required is the use of words indicating a desire that the wife shall have the property for her own use and benefit. Gifts made by a stranger, and profits made in trade, where such trade is carried on apart from the husband, will be regarded as separate estate. A wife could dispose of her separate estate, but in the case of fee simple or fee tail estates she required the concurrence of the persons in whom the legal estate was vested, in order to convey the legal as well as the equitable estate. The deed or settlement giving the separate estate might contain a clause prohibiting a married woman from alienating

the *corpus* of the property whilst the marriage lasted.

In 1870 an act was passed to empower married women to hold and dispose of certain kinds of separate estate. By subsequent acts the principle was extended, and now, by the Married Women's Property Act 1882, a married woman holds all real and personal property accruing to her as if she were a *feme sole*, free from the legal control of her husband.

[J. R. Griffiths, *The Married Women's Property Acts*, London, 1891.] J. E. C. M.

SEQUESTRATION. The method of enforcing execution against a beneficed clergyman. *Bona ecclesiastica* cannot be touched by a lay hand, but a writ can be issued to the bishop of the diocese, ordering him to enter into the benefice and hold the same; the judgment is satisfied out of the profits. The bishop sends out a sequestration of the profits, directing the churchwardens to collect the profits and satisfy the judgment.

[Stephen's *Commentaries on the Laws of England*, vol. iii., London, 1890.] J. E. C. M.

SEQUIN (or ZECCHINO). A gold coin circulating in Italian countries before the formation of the modern kingdom of Italy.

Zecchino of Venice,	3·49 grammes,	993/1000	fine.
,, Milan,	3·46 ,,	990/1000	,,
,, Genoa,	3·46 ,,	995/1000	,,

F. E. A.

SERF (SERFDOM). This term is often treated as the equivalent of *slave* (see SERVUS), whereas it should only be applied to a peasant who renders obligatory personal service in return for the land on which he is bound to dwell. The English villein (see VILLANUS) is typical of the partly unfree class in western Europe, for the French *vilain* paid a fixed rent in produce, gave a fixed amount of labour, and had a better position before the law.

Serfdom, unknown in Normandy after the 11th century, gave way early in northern France. The main emancipation had been effected by the beginning of the 14th century; but the peasants still had feudal rents and payments to make, chiefly in produce, and performed FORCED LABOUR (*q.v.*) (see also CORVÉE) on the roads. From these duties they were not freed until August 1789. The German serfs had in some parts obtained their liberty towards the end of the 13th century, in others they remained unfree until the present century. M. de TOCQUEVILLE, *France before the Revolution*, ii. c. i., states that in no part of Germany, at the close of the 18th century, was serfdom quite abolished, and in the greater part of the country the people were still *ascripti glebæ*. The end certainly came late; in Baden not till 1783, in Prussia not effectually until 1809. In Saxony serfdom lingered up to 1832, and in one other principality till 1833. Austria had completed the abolition in 1811. In Denmark, where there had been, as in the Scottish cases of 1799, a lapse from early freedom, it ended in 1804. Serfdom had quite disappeared from Italy by the beginning of the 15th century. In Spain, in Castile, under Alphonso XI. (1312-50), the serf was irremovable so long as he paid fixed dues, and his holding became hereditary. In Russia the history of serfdom is one of the gradual lapse of slaves, free peasants, and small farmers into one class of serfs, from whom the Tsar Boris Godunóf (1598-1605) took away the right of migration. Once tied to the soil, they gradually lost their rights, and the power of their owners to sell them apart from the land became recognised late in the 17th century. The poll-tax, imposed by Peter the Great, led to proprietors being made responsible for their serfs, who, if not attached to a commune or a lord, were treated as vagrants. A peasant war broke out in the early days of Catherine II., but it failed. A reaction, however, began under Paul I. (1796-1801), who tried to limit the peasants' work to three days in the week, but it was not until after the Crimean war that effective measures were taken. These ended in the final abolition of serfage on 3rd March 1861. The dues of the Russian serf were, as usual, labour, money, and farm produce, and he was, in some cases, the victim of cruelty and oppression; but Mr. Wallace remarks that a serf might often die at a ripe age without ever having been conscious that serfage was a burden. The same writer observes that a serf's natural defences were passive resistance, flight, arson, and murder. War seldom availed him much. The revolt of the Spartan Helots in B.C. 464, and the slave wars of republican Rome, had their milder counterparts in England in 1381 and 1450; but the latter appear insignificant beside the peasants' revolts in Germany in the 15th and 16th centuries. These were fearfully sanguinary, and so far from improving the condition of the serfs, greatly delayed their emancipation.

Mr. Seebohm observes that the discovery of silver in the New World did not benefit the French or German serf. The produce in which the Frenchman paid his dues increased in value just as his land did, and the German had to work just as much in each week as before; but the English peasant, who had commuted his services and paid 4d. in 1500, still paid 4d. in the year 1600, so that his rent had fallen to $\frac{1}{3}$th or $\frac{1}{5}$th of the burden it had formerly been.

[The literature of the subject is enormous, being unduly mixed up with that of SLAVERY; and the list of authors appended to the article "Slavery" in the *Encyclopædia Britannica* (9th ed.) will be found valuable. Three articles by Canon Brownlow on the "Abolition of Serfdom in Europe" in the *Month* for 1891 (vol. lxxi. p. 239 and p. 537; and vol. lxxii. p. 73) give a slight but useful sketch of the subject, and cite recent authors. F. Seebohm, *The Era of the Protestant Revolution*, 1874, gives a masterly account of the peasants' wars, and of serfdom in France, Germany, and England, giving due prominence to the economic side of the question. Sir D. Mackenzie Wallace, *Russia*, 2nd ed., 1877, is invaluable for eastern Europe.] R. H.

SERJEANTY, PETIT (*parvum servitium regis*) is a rare kind of free socage or freehold tenure (see SOCAGE), in which the tenant holds his land of the king, "yielding" therefor a

bow, sword, or "other small thing belonging to war." The "yield" is annual, fixed, and, like rent, non-personal. Other incidents, if any, of this tenure were taken away by 12 Car. II. c. 24. The Dukes of Marlborough and Wellington have, since their creation, held lands in *petit serjeanty*, the annual "yield" being a flag.

[Co. Littl. 108 a. b.] J. D. R.

SERRA, ANTONIO (17th century), was born at Cosenza; nothing is known as to his life except that he wrote his treatise on the abundance of money in the prison of the Vicaria at Naples, where he was imprisoned on a charge of coining. This treatise, unnoticed by his contemporaries, had no influence on the condition of the kingdom of Naples, where the contrary opinions of his adversaries prevailed, but was at a later date highly appreciated by economists, and its importance is such as to place Serra in the foremost ranks among the economists of his day. The importance of Serra's work was exaggerated and misunderstood by many who believed that he studied the theory of international trade, whereas he was only considering the actual balance of reciprocal international engagements. Some considered him a free-trader because he advocated free trade in money, without observing that he in no way deduced this doctrine from the consideration of international trade; others, again, accused him of mercantilism, but, though he over-estimated the value of money, he did not go so far as to confound it with actual wealth.

Serra, whose attention was occupied by the great scarcity of specie which was then the source of much distress to the kingdom of Naples, studied this feature as a monetary phenomenon independent of its economic significance. He combated the opinion of DE SANCTIS that the high rate of exchange caused a scarcity of money, forming a theory of his own on payments between one country and another. He perceived that the rate of exchange is merely the sign of debt contracted outside the country, and was thus induced to examine into the true causes which induced money to flow into a country. Excluding the indigenous production of minerals, the kingdom of Naples produced no precious metals. These causes have their basis in international trade, in those transactions which render one country the creditor of other countries.

Serra describes these conditions—the superabundance of the produce of the land for exportation; the quantity of manufactured goods which can also be exported; the enterprising character of the population, which does not content itself with carrying on industries at home, but establishes and carries them on abroad, bringing home the profits; and, lastly, the profit to be made by a country acting as an intermediary in trade between other countries. Serra, however, stops short here; and being unacquainted with the theory of international trade, he confines himself to the more limited question of payments.

Serra's ideas on the value of money deserve notice; they are based on the conception that the value of each coin is connected directly with the amount of pure metal it contains, and depends on the conditions of the market and not on legal regulation. But he ignores the quantity theory of money, though he admits that an abundance of the precious metals is an absolute benefit to a country. Serra advocates permission for free export of money, but he cannot be called a free trader in the present acceptation of the word. He holds that the export of money becomes necessary if debts abroad exceed the credits; and that as long as this state of matters lasted it was useless and injurious to prohibit the export of money. On the other hand, he maintains that the government is entitled to interfere and to influence the exchanges in order to stimulate the export of national products, and thus to cause the balance of international credit to be favourable, especially by protecting and encouraging the development of national industries.

Serra's writings contain powerful and minute criticism on every subject he discusses; he supplies proofs of several elementary truths, though he neither originated nor perfected any distinct economic theory.

Breve trattato delle cause che possono fare abbondare li regni d' oro et argento, dove non sono miniere. Con applicazione al regno di Napoli, Naples, 1613.

[See Trinchera, *Di Antonio Serra e del suo libro*, Naples, 1865.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, Milan, 1882.—*Studi sopra Antonio Serra e Marc Antonio De Sanctis*, Pavia, 1880.—Gobbi, *La concorrenza estera, etc.*, Milan, 1884.—Cossa, *An Introduction to the Study of Political Economy*, London, 1893.—A. De Viti De Marco, "Le teorie economiche di Antonio Serra," *Atti del R° Istituto Lombardo*, Milan, 1890].

U. R.

SERVICES.

Material and Personal, p. 381; Predial and Military, p. 383.

MATERIAL AND PERSONAL. A service is an action performed by a person or body of persons for the benefit of another person or body of persons. The giver of the service is generally not the same as the receiver of the service. In exceptional cases, however, the giver and receiver are identical; *e.g.* a professional vocalist may sing for his own entertainment, a consulting physician may treat his own case, or a man may mend his own clothes. We exclude from the scope of the term *economic service* such personal relations as affection, admiration, and confidence, because a man cannot choose at will to render such services to one person rather than to another, and moreover his dispositions and sentiments towards one person do not neces-

sarily interfere with similar dispositions and sentiments towards another. An economic service can be more exactly defined as a beneficial action which can be rendered according to choice for the benefit either of one person or of another, and can therefore enter into any mutual agreement between man and man. In this sense, all economic services may be said to be *transferable*. Owing to their transferability, services may come to have an EXCHANGE VALUE. Economic science is mainly concerned with those services only which, being transferable, have also an exchange value. Such a service must be looked at from two points of view, viz. what it means for the giver and what it means for the receiver. To the giver of the service, the action is a DISCOMMODITY (negative wealth); to the receiver of the service, the action is a COMMODITY (positive wealth). We need not, however, assume that the discommodity in the one case and the commodity in the other case are measured by the disutility and utility respectively involved in the action. The terms discommodity and commodity are to be measured objectively by their exchange value. The correlated disutility and utility are measured subjectively. In fact, the total effect on the performer may be positively pleasurable, and perhaps the total effect on the receiver may be positively painful.

It is obvious that services must be included in any enumeration of the things on which the income of an individual or community may be spent. A considerable portion of a man's income may be spent on such services as *advice, entertainment, instruction*, etc. We must, however, distinguish the *ability* to perform a service from the actual performance; as well as the *benefit* derived or expected to be derived from the service from the actual receipt of the service. For the ability to perform a service comes under the head of personal capital possessed by the giver; and in many cases the benefit conferred on the receiver is also a purely personal non-transferable good.

On the side of the receiver we may distinguish between material services and personal services. A material service is one which provides a utility embodied in matter; such as the service of cleaning or repairing articles, of conveying goods from place to place, of working up raw materials in the processes of manufacture, etc. Material services cover practically the same ground as labour, including most forms of domestic labour, as understood in economics. The immediate effect of an employé's work is to confer a service upon his employer; and this service is manifested in the increased value of the employer's material goods. It is for this increased value that wages are paid. Two kinds of service may be here distinguished—a *production-service* and a *consumption-service*; the former adds to the value of the employer's production-goods, the latter to that of the employer's consumption-goods. Compare the employment of *factory hands* with that of *gardeners* in a private family. So far we have considered material services. A personal service is one which provides a utility embodied in a person, such as the service of advice or instruction. For instance, medical advice may be expected to restore the patient's health, professional instruction may be expected to increase the pupil's knowledge. But here it must be noted that the pupil or patient does not *purchase* knowledge or health; these are non-transferable personal utilities. He purchases merely the services of instruction or advice, which have been called transferable goods. One important case of rendering a service is that involved in handing over the *goodwill* of a business or professional practice. Strictly speaking, the goodwill cannot be bought; for it is a personal non-transferable possession analogous to reputation or knowledge. What is bought is the service of introduction and possible diminution of interference from competition, etc.; and what secures a price for this service is the expectation that the "custom" of the business or practice will be maintained under new hands (see GOODWILL).

Turning from the receiver to the giver of a service, we have already observed that the power to perform a service is a species of personal wealth or personal capital, which is non-transferable. The personal possession is a durable good, which may be either a production-good or a consumption-good. So far as the ability is used for the direct enjoyment of the owner, it is a consumption-good. So far as it is used for other ends beyond direct enjoyment, it is a production-good. In the latter case, the work comes under the head of economic labour; and we define a production-good as that which is utilised by an expenditure of economic labour. Another distinction must be drawn according as the ability to perform a service is a free gift of nature or the result of previous labour and expense. In the former case, the return for the service is partially of the nature of rent, in the latter of the nature of interest.

The more exact consideration of the distinctions between rent, quasi-rent, interest, and profits will apply to the employment of personal capital just as to the employment of material capital. A fundamental distinction will however remain between wages in its broadest sense on the one hand and interest and rent on the other hand. The earnings of labour will always include, not only a return for natural advantages and past expenses of training or education, but besides this a recompense for the exertion of effort and loss of leisure actually incurred in the work itself (see also GOODS, CLASSIFICATION OF).

W. E. J.

Services, Predial and Military.

Predial, p. 383; Villein, p. 383; Free Tenant, p. 383; Military, p. 384.

1. Predial.—These differ greatly in degree, when they form the return made by a villein to his lord for his holding on a manorial farm, or when they are done by Socmen or Libere Tenentes. The latter usually worked at the harvest Precariæ and on a few other days, and then only by deputy; but they were bound to be present with rods and to keep the actual labourers up to their work, and they provided their stipulated number of men.

The villein (see Villanus) was bound to Week-Work (*q.v.*) all the year round with few intermissions. Ploughing, harrowing, and hoeing, with the further duty of providing seed in some cases, were one main form of predial service. *Bedripes* (*i.e.* bidden reapings), the reaping and mowing of corn or grass, formed a second variety, but to these were added ploughing and reaping *precariæ*. A third principal class of labour consisted of *averagia*, or the carrying of crops from, and manure to, the fields. Beyond these there was miscellaneous farm work such as hedging, ditching, threshing, washing and shearing sheep, thatching, cutting brushwood, and guarding sheep-folds. Most of these, with the *prestations* or offerings of poultry, eggs, sucking-pigs, and the like, were in course of time commuted for money payments. Matters of this kind are recorded with such minute care in manorial extents that this would alone tend to show that lords could in practice only claim a stipulated portion of the time of men who in strict law were absolutely their chattels. The exact nature of these predial services can scarcely be realised without actual examples from the records, and the following compressed translations from the *Ramsey Cartulary* (i. 287, ii. 47) will show the general work exacted from tenants of different classes about A.D. 1340:—

Free Tenant. Andrew, son of William the free man, holds a Virgate and a half, and for it owes suit of the hundred and county courts as well as of the manorial. He finds two men at the first *precaria*, whom the abbot must feed, and he himself goes among the reapers with his rod and eats with the *servientes*. He pays as much Hidage and scutage as belongs to his holding and he pays *Heved Peny*, which excuses him from attending the halimote more than twice a year (i. 369). *Workmen, etc.* William, the carpenter, holds a toft for 32d. and *ben* and *bedripe* (ploughing and reaping *precariae*).. John, the shepherd, a toft for 20d. and *ben* and *bedripe*. Gilbert, the reeve, a toft for 2s., and *ben* and *bedripe*. The workmen and manorial officers were at Ramsey allowed the corn from three acres and a similar amount of barley (i. 351). *Villein.* Richard atte Green holds one virgate for which he pays 12d. annually *ad heusyre* (house-hire), and for the aid of sheriff and hundred 4¾d. At Christmas he brings one fowl and one bushel of wheat called *benesed*, and one ring of oats for *foddercorne*, and ¾d. in Lent as *fissilver* (in lieu of fish), and twenty eggs at Easter. He pays also Tallage, hidage, Pontage, Pannage, Merchet, Heriot, fine on marriage of a daughter, and wodehac (fuel money). Once a year he shall find a man to work for a day in the vineyard until sunset, or pay 1d. to the vine-master. From Michaelmas to Whitsuntide he shall alternately work for four days and plough on the fifth in one week, and work on two days and plough on the third in the next week. From Whitsuntide to Michaelmas he shall work for four days and, if necessary, plough on the fifth every week, but will be excused on festivals. If he has to do task-work he will thresh twenty-four sheaves of corn and thirty of barley, beans, or oats, as one day's work. He shall gather in the wood and carry one bundle of brushwood to the farmyard or one bundle of thorn, and if he makes an enclosure with thorns he shall be quit of the day's work if the bundle is large; if it is small he must go back to the wood and get another. He shall enclose by task-work one and a half or two rods (per day) fetching the thorn. On level ground he shall dig a (ditch) of 16 feet long, 5 feet wide at the top and 2 at the bottom, and 2 *spadegrafes* or more in depth. In an old ditch he shall dig 32 feet of the depth of one *spadegrafe*, and shall trim the sides well so as to make the ditch as wide as it was at first, to the satisfaction of the *serviens* or the reeve. He shall gather three bundles of brushwood and trim them and cart them to the farmyard. He shall scatter manure over one acre strip, and shall harrow at sowing-time with the harrow he uses on his own land from morning till sunset without interval. He shall also hoe from morning till evening with a short time for food, also he shall mow from morning till evening with one able-bodied man, who will have food at noon and at once return to the mowing; and at evening he shall have one bundle of grass as much as he can lift on his scythe, but without breaking the scythe or touching the ground, or he will lose the bundle. Also he shall mow half an acre of meadow, and shall unite with others for the work of one day, and he and his fellows shall have one measured acre of meadow called Sythaker. In every week of the year, except thirteen days at Christmas, he shall plough one acre strip with as many oxen as he has in the team, and besides that ploughing, at wheat-sowing he shall plough one acre strip for a *lovebone*, which ploughing shall reckon as a day's work. At oat-sowing he shall come to all the ploughing *precariae* as he is ordered, and the abbot shall feed him. At the first autumn *precaria* he shall find four labourers, of whom two shall have three loaves, beer, fresh meat, and one portion of cheese. And if that *precaria* shall be taken, through the forwardness of the season, before 1st August, on the morrow of the *precaria* he shall work with one man as a recompense for the dinner of the preceding *precaria*. If the *precaria* is taken after 1st August he shall find two men for labour in the same way as before. At the second *precaria* he shall provide three men, and two men shall have three loaves as at the first *precaria*, and six

herrings, cheese, and water; and on the morrow he shall find one man for the work allotted to him. And if a third *precaria* is necessary he shall work with one man without food. This shall reckon in place of one day's work. He shall cut the straw or bind it as often as he is told throughout one day as a day's work, having a short time for eating. Jointly with another virgate-holder he shall do cartage for a whole day in autumn with a cart, two men, and two horses, with a short interval for food. This is to reckon as one day's work. And if he does this before 1st August on the morrow he will be quit of work, but on the next day he, with one man, shall do what the bailiff orders. Similarly he and another virgate-holder shall find a cart with two horses and two men to carry hay. They will have one knight's loaf of bread and beer, but the cartages will not reckon (as a day's work). Also he shall gather one *calligata* (perhaps one quarter bushel) of nuts as one day's work. If he does it on a festival he shall do a day's carrying at the abbot's will within or without the county. And he and another virgate-holder shall do a day's carrying within or without the county which shall not reckon as a day's work. Each load will be one ring of corn or six bushels of barley or oats. He shall take one ring of corn to the mill, which a cottar shall safeguard until it is ground to flour, and then Richard shall take it to Ramsey. Also he and another *virgatarius* shall take one load of cheese or bacon and shall have for each load a loaf and ale the day before Good Friday and on Tuesday in Easter week. He shall gather twigs and make from them one screen nine feet long as one day's work, or one partition between the booths at St. Ives for two days' work. As often, too, as he shall watch as a guard over thieves he shall be quit of work on the morrow of that night. If he shall fall sick, for the whole time of his sickness up to the end of a year and a day, he shall be quit of all work except ploughing, and if his illness lasts longer he shall thenceforward do what pertains to his holding. If he dies before his wife, his widow shall give 5*s.* as a heriot, for which she shall be quit of all work for thirty days. And if he shall die unexpectedly, leaving no will, the abbot shall have SEISIN of his houses and chattels to dispose of at his pleasure, which houses the widow cannot enter or stay in except with the assent of the abbot. On the day on which he ploughs upon the abbot's land he ought not to be distrained by taking the beasts that are that day in his plough-team, but the distraint should be put off till the morrow.

The above is an instance of a rather exacting lord; but there are, of course, variations of all kinds from the specimen here given. The punishments inflicted on manorial tenants who failed in any of these duties may be read *passim* in Prof. Maitland's *Select Pleas in Manorial Courts*.

There are many curious varieties of minor exactions, such as *unlawenearth* and *godlesebene*, which speak of hardness and unreason; for lists of them, accompanied by such interpretations as can be given, see Vinogradoff's *Villainage in England*.

MILITARY.—These services, so far as concerns the higher ranks of the army, are fully discussed under KNIGHT'S SERVICE; but the FYRD which, with the mercenaries, furnished all the infantry in early feudal times, requires a short notice.

The *Assize of Arms* of 1181 (*Benedict*, i. 278) orders the *communa* of free men to supply themselves with a coat of mail, head-piece, and lance. These were of course men-at-arms; but this is only a portion of the matter, for records show that the villein class went to the FYRD with their reeve at their head. But the REEVE was generally a VILLEIN himself, and a better equivalent of the modern non-commissioned officer seems to be suggested by the presence of the *servientes*, in French *serjanz*, who have given us the name now used for the class. The early PIPE ROLLS contain numerous entries respecting knights and *servientes*, which as Mr. Round shows, prove that the former were paid 8*d.* and the latter 1*d.* *per diem*. The roll for 11 Hen. II. p. 85, has an entry as to wounded men juxtaposed with one as to the payment of *servientes rustici*, who were of course villeins, but no doubt trained for military service. These "sergeants" often existed in large numbers, the abbot of Abingdon alone supplying Henry II. with as many as 100. Jordan Fantosme (*ll.* 1200-1242) shows them in battle "les meillurs serjanz k'unkes barun retint," but gives no clue to their position or duties; and yet these paid sergeants going out with the *villani* to the fyrd could scarcely have dropped altogether the authority which manorial records show they had over the same *villani* in the harvest field. We must not go into more details of the military matters of this period. Gradually the ancient fyrd system was transformed by the assize of arms, and, lasting through other changes, survives in the modern militia. R. H.

SERVICIO (or PEDIDO). An aid or subsidy (see AID, AUXILIUM); granted (*servido*) by the cortes of Castile to the king, who had demanded (*pedido*) it in extraordinary emergencies.

[Piernas Hurtado, *Tratado de la Hacienda Pública*, vol. ii. p. 47 (4th ed., Madrid, 1891), and Canga Arguelles, *Diccionario de la Hacienda* (London, 1826), under the word Pedido.] E. Ca.

SERVITUDE, NATURAL. Servitudes fall into two classes: (1) those granted by landowners; (2) those created by law. The latter class are sometimes called "natural servitudes."

[Goddard on *Easements*, London, 1891.]

J. E. C. M.

SERVITUDES. The *servitutes* of the Roman law. These were certain rights over the property—not only upon lands but also upon cattle, furniture, and slaves—of another person which could be enforced by legal remedy. They are usually classified as (1) *personal*, when given to a particular person, such as, Usus (*q.v.*) and Usufructus, *operæ servorum*, and *operæ animalium*; (2) *prædial*, when associated with the ownership of something (the *res dominans*) by right of which the servitude was enjoyed over something else (the *res serviens*). This section included (*a*) *urban servitudes*, such

as *jus tigni immittendi; stillicidii, projiciendi,* and several others; and (*b*) *rustic*, as for example the *jus eundi*, or right of way on foot or on horseback; and *aquæ ductus*, the right of passage for water.

[*Institutes of Justinian*, bk. ii. tit. 3-5.—T. E. Holland, *Jurisprudence*, 1893. As to Servitudes in English Law, see EASEMENT.] R. H.

SERVITUS signifies in Roman law (1) slavery, (2) the subjection of a thing, *i.e.* the relation which arises from a thing belonging to the person, being subject to a limited extent to one right of another, such right being either for the benefit of a particular person, a personal servitude, or for the benefit of neighbouring property, a real or predial servitude. The right to a servitude cannot be separated from the person or thing it is intended to benefit, *i.e.* the right itself is inalienable. A servitude is a right available against all the world, which entitles a person either to interfere positively with the property of another, as by walking over his land, or to prevent another from dealing with his property, as he otherwise might have done, as from building his house above a certain height (see SERVITUDES and EASEMENT).

E. A. W.

SERVUS (Roman law). The class of slaves was chiefly recruited by captures in war, prisoners being usually sold after a battle to the slave dealers who followed the Roman armies. Cæsar (*De Bell. Gall.*, iii. 16), mentions that after the war with the Veneti he sold the sea-board people *sub corona*, that is, into slavery. Servile birth, evasions of military service or public taxation, and debt, increased the number. In legal theory the master had complete power, even of life and death, over his slave; but in the early days slaves were, as Plautus shows, kindly treated on the whole. In the times of corruption and debasement, restraining laws had to be passed against killing them, and Antoninus Pius enabled them to obtain some protection from cruelty, yet even in the days of Justinian the slave had acquired no legal rights. He could not, according to strict law, hold property and could not marry. Custom was, however, as usual in direct opposition to strict legal theory. The slave was generally permitted to accumulate earnings, and his *peculium* was often allowed to become the means of procuring his manumission. He was encouraged to learn trades, and the artisans and even teachers and physicians of Rome were often slaves. Indeed, they frequently kept their masters in affluence by their skill. The slave's *contubernium* was, in effect, viewed as marriage; and in sales of property there was a rule of law against separating near kindred. It was not in the power of a private slave to bequeath by will—though even this took place in fact—or to make valid contracts for his own benefit. Any advantage from such contracts enured to his master. On the other hand, manumission could be gained by many exceptional methods, such as the revelation of plots, detection of crimes, and military service, as in the Punic wars. The punishment of slaves by whipping and branding was common, while crucifixion was the fate of those condemned to death.

Romans of the wealthiest class, under the emperors, often owned thousands of slaves, and the war of Spartacus testifies to the large numbers of the class at an earlier date. They were employed in large gangs in agricultural work; but many were reserved for domestic duties and the cruel service of the arena. To the Roman villa there was usually attached an *ergastulum*, part of which was an underground prison in which the more dangerous slaves, who worked in chains, were kept at night, while those who were reliable lived in the upper part of the building.

There were, however, two main classes of slaves, public and private. The former were in a far better condition, and were employed as minor public officials. The fact that they could leave half their *peculium* by will marks a real difference in their position.

(*Mediæval.*) The story of the English youths in the slave market at Rome in A.D. 578, connects the mediæval with the Roman traffic in human beings. In the laws of Ina (about A.D. 688), the sale of persons whether bond or free, to be taken out of the realm, is forbidden (Wilkins, p. 17); but Domesday Book (i. 26) contains a reference to the trade (Tolls at Lewes, *de homine, iiij. d.*), and William of Malmesbury (*Vit. S. Wulstani*, Wharton, ii. 258) describes its prevalence at Bristol under the Conqueror, mentioning the cruelties and immoralities which accompanied it. Some were sent to Denmark (*W. of Malm.*, i. 245); but they were chiefly exported to Ireland; though the Irish bishops strove to stop the traffic (Gir. Cambr., *Expugn. Hibern.*, i. c. 18).

Bishop Stubbs classifies the slaves of the early Anglo-Saxon times as the *theow* or slave simple, whether *wealh*—that is of British extraction—or the descendants of the slaves of the first colonists; the *esne* or slave who works for hire; and the *wite-theow* reduced to slavery for debt, or self-sold into slavery to avoid starvation. They had no *wergild*, no credibility, no legal rights; but there are traces of a practice which was better than the legal theory, and it was possible for a slave to save up money and buy his freedom.

Domesday Book enumerates 25,156 slaves, nearly one half being in Gloucestershire, Wilts, Dorset, Somerset, Devon, and Cornwall, and very few in the northern half of England. Although the strongly Danish eastern counties contained 3672, the concentration was on the Celtic side of England, and the Danelagh was

comparatively free. There is thus some ground for believing that the ancient Celtic population furnished the bulk of the *servi*. The Hundred Rolls of 1279 contain many entries of *servi*, but though many of these (*e.g.* ii. 825, where the *servi* hold virgates) are careless designations of *villani*, Vinogradoff points out such expressions as *ut villani, ut servi, ut libere tenentes* (ii. 690, 691), which are clear, and yet, as these men held small plots of land, they were slaves more in name than reality. In legal theory even a *villanus* was a slave; but in such documents as the *Liber Niger* of Peterborough (*circa* 1125), or the Ramsay cartulary, i. 281 (1251), there is no trace of a genuine *servus*, and Professor Ashley is probably right in saying that absolute slavery disappeared in less than a century after the Conquest (*Economic Hist.*, i. 18).

[Smith, *Dict. of Greek and Roman Antiq.*—Stubbs, *Constit. Hist.* i.—Cunningham, *Growth of Eng. Industry and Commerce*, i. 81.] R. H.

SESTERTIUS (Latin for $2\frac{1}{2}$), Roman silver coin, first struck 269 B.C., weight 288 to the lb. or 17·5 grains, later 15 grains, original value = the "libral as" of 250 scruples, *i.e.* $2\frac{1}{2}$ 4 oz. asses of that period. Soon after 269 B.C. it became, and whether silver, or, under the empire, bronze, remained the monetary unit until Diocletian, when the "follis" took its place as coin. 100 sesterces = 25 denarii = 1 aureus. Obverse, female head helmeted and winged, and IIS (= $2\frac{1}{2}$); reverse, Dioscuri on horseback.

[S. M. Stevenson, *Dictionary of Roman Coins*, (1889).] J. D. R.

SET-OFF. The right of set-off is the right of a debtor, from whom the amount of the debt is claimed, to deduct any amount which his creditor owes him. This right is not a common-law right, but was introduced by statute 2 Geo. II., c. 22, § 13, and is now recognised by the rules of the supreme court (order 19, rule 3), and also by the Bankruptcy Act 1883 (§ 38), subject, however, to the reservation that a person, who at the time of giving credit to a person to whom he is indebted, had notice of any act of bankruptcy committed by the latter, forfeits his right of set-off. In such a case the person so giving credit must pay to the trustee in bankruptcy the whole amount owing by him to the person to whom he gave credit, and must prove in the bankruptcy for the amount of the debt owing by the bankrupt to him.

E. S.

SETTLED LAND. See SETTLEMENT.

SETTLED LAND ACTS. See ENTAIL, LAW OF; SETTLEMENT.

SETTLEMENT.

Settlement (Land), p. 386; Settlement, Poor Law, p. 387.

A settlement is defined in Sweet's *Dictionary of English Law* as "an instrument by which property, or the enjoyment of property, is limited to several persons in succession." The usual object of a settlement is to provide for the wants of a family. Property can scarcely be turned to the best account by any but an absolute owner; but it may be lost altogether by his folly or misfortune. Its safety is ensured by giving only a restricted interest to each of those individuals whom it is intended to benefit. A settlement may be made by deed, by will, or even by a private act of parliament. In the majority of cases it is made by deed, and on the occasion of a marriage (see MARRIAGE SETTLEMENT).

Settlements differ chiefly as the property settled is personalty or realty. Settlements of personal property are comparatively simple. The common law recognises no restricted interests in chattels corresponding to *estates* in lands. In order, therefore, to secure the enjoyment of personalty to several parties in succession, it is necessary to create a trust (see TRUST; TRUSTEE). The fund is vested in trustees, who have many of the powers of an owner for preserving and administering it, but who are bound to pay the income arising from it, and eventually to distribute the principal according to the directions contained in the settlement. The conception of a trust was due to the court of chancery, and trusts are still enforced by the chancery division of the high court of justice. Settlements of personal property are comparatively modern; for most of those kinds of personal property which produce a permanent income, such as stocks and shares, were unknown till comparatively recent years.

Settlements of real estate have a longer history. From the earliest time down to a time comparatively recent, land was immeasurably more important than all the other forms of wealth put together. The great majority of civilised men derived their living and their social position from the land which they held. Hence the frequency of restraints on the alienation of land imposed in the interest of the owner's family. Such restraints appear to have existed among the German peoples who invaded the Roman empire. With the development of feudalism (see FEUDALISM) the power of alienation was yet further restricted. Each man's political and military duties were determined principally by his relation to the land. Landed property assumed a public character. The same causes which tended to produce a rigid rule of succession to kingdoms tended to produce a rigid rule of succession to private estates. That estates should be inalienable and indivisible might seem conducive to public order; it certainly prolonged the greatness of families, and assisted the overlord in enforcing his feudal claims. In England the power of making a will of lands disappeared after the

Norman conquest, except in a few places where it was preserved by tenacious custom (see WILL, BEQUEST BY). The Statute of Westminster the second, *De Donis Conditionalibus*, 1285, took away the power of alienating an estate tail (*i.e.* an estate given to a man and the heirs of his body). Thus every entailed estate was placed in perpetual settlement. Much inconvenience ensued, but the statute, instead of being repealed, was evaded. Unable to dispose of the land itself, men disposed, by will or otherwise, of the use or beneficial interest in the land, and the chancellor gave effect to their dispositions. The Statute of Uses (1536) was designed to prevent the creation of such interests, but failed of its object, giving rise to new and unprecedented methods of dealing with land. The courts of common law encouraged the collusive actions known as fines and recoveries, whereby it became possible to bar entails so as to get rid of the restraint on alienation imposed by statute. It was laid down that a tenant in tail could not by any means be deprived of his right to have recourse to these actions. To protect estates from the exercise of the power of alienation thus obtained, settlements of realty were gradually developed. By the middle of the 17th century these settlements had taken the form which they kept for more than two hundred years.

As the common law has always recognised limited "estates" in land, it is not necessary to a settlement of real property that the land should be vested in trustees. Those who are to take the land will have legal and not equitable estates. By means of the application made of the Statute of Uses these legal estates can be made to arise or to shift from one person to another in a way which would have been impossible in the middle ages. The settlement usually gives an estate for life in possession to a particular person followed by estates tail in remainder to his children. A tenant for life had no power of alienation at common law, and a tenant in tail in remainder cannot bar the entail without the concurrence of the tenant for life. When the eldest son of the tenant for life comes of age, the land is usually re-settled, and his interest cut down to a life estate, estates tail in remainder being granted to his children. Thus, by means of settlement and re-settlement, the land is hindered from ever becoming subject to an estate tail in possession which might be barred by the sole will of the tenant in tail. It therefore became inalienable until recent legislation. By means of an intricate legal mechanism a settlement of real estate also provided for the widow and younger children of the tenant for life, and vested in trustees such powers of selling, exchanging, leasing, etc., as were deemed necessary to the proper management of the estate. But the main purpose of such settlements, to make the settled land inalienable, has been entirely defeated by the Settled Land Acts. Under these acts the tenant for life has powers of dealing with the land little inferior to those of a tenant in fee simple, and in particular has a power of alienation which is all but unlimited, and which he cannot by any means bind himself not to employ. The proceeds of the sale of settled land must be invested for the benefit of the persons entitled under the settlement. A settlement of real estate can no longer ensure the indefinite retention of the same land by the same family. It can only ensure the preservation of a fund which may take the form of land or of certain other investments, and must descend as though it were land.

The time during which property, real or personal, could be tied up by the provisions of a settlement is restricted by the rules against perpetuities (see PERPETUITIES), which were gradually worked out by judicial decision. No interest in such property can be created which would not necessarily take effect within a life or lives in being at the time of the settlement or twenty-one years after. In addition to this the statute 39 & 40 Geo. III. c. 98, commonly known as the Thellusson Act, because occasioned by the unreasonable will of a Mr. THELLUSSON (*q.v.*), forbids the accumulation of the income of settled property for any time exceeding the life of the settler and twenty-one years after.

In conclusion it may be said that settlements as the means of making particular objects of property inalienable are likely to disappear altogether. They are not favoured by economists, and they conflict with modern ideas. But settlements as the means of making provision for parties about to marry, and their children, are likely to become more common with the growth and diffusion of wealth.

[Williams, *On Real Property and on Settlements.*—Pollock, *Land Laws* (English Citizen Series).—Digby, *History of the Law of Real Property.*—Williams, *On Personal Property.*—Davidson, *Precedents in Conveyancing.*—Tudor, *Leading Cases in Conveyancing.*—And the authorities cited in art. ENTAIL, LAW OF.] F. C. M.

SETTLEMENT, POOR LAW, means the place liable, or which, where there is irremovability (see below), may again become liable for a person's maintenance, should he become destitute. Settlement is often dated from the act of 1662; but, in fact, the principle had been generally recognised in previous legislation. The earliest English laws enforced the responsibility of the community for its members,—stranger and outlaw were, in the beginning, almost synonymous terms. When, with the industrial revolution of the 15th century, the evils of vagrancy grew to a head, the attempted remedy was the vagrant's removal to his birthplace (12 Rich. II. c. 7 and 8; 19 Hen. VII. c. 12, 1 Ed. VI. c. 3). In the numerous

statutes which culminated with the great act 43 Eliz. c. 2, the burden of relief is always recognised as falling on the parish. A person was considered settled in the parish where he was born, or in which he had dwelt for the last three years (1 Ed. VI. c. 3), or in some cases one (39 Eliz. c. 4). A mass of settlement law had accumulated, and quarter-sessions and assizes were continually occupied with the decision of these cases (Inderwick, *Interregnum*, 1891, 8vo, p. 91). Moreover, the mischief was practical. The administration of the poor law differed widely in different parishes. In many, rates were not levied for thirty or forty years after the passing of the act of Elizabeth (tract quoted by Eden, *State of the Poor*, vol. i. p. 144); and cases were frequent of able-bodied men leaving their homes and wives and children chargeable upon the parish (7 Jas. I. c. 4, § 7). In these circumstances, the settlement act in effect enacted that forty days residence within a new parish conferred a settlement; but that, in the interval, the new comer should be removable to his birthplace. Whatever its intentions, the results of the act were disastrous. If it did not forge the fetters of the labouring poor, it fastened them afresh, when they were dropping off. Under a new name the working classes became once more *ascripti glebæ*. On this one point critics of the poor law were agreed; theorists and practical men were at one. The assailants of the system included Adam Smith and Pitt. A striking picture of its effects is found in Arthur Young's *The Farmer's Letters to the People of England*, 1767, 8vo, p. 173. "The prodigious restrictions thrown on their settlement tends strongly to prevent an increase of their numbers." Landlord and farmer carried on "an open war against cottages," thus widening the breach between employer and labourer which was sufficiently open before. "Nor is the hardships of removals less: a man is resident in a parish, where by his connection or nature of his business he is much better able to maintain himself than in any other place—this circumstance often is as three to one; he marries, immediately he receives notice to quit . . . and his example hangs *in terrorem* to prevent others from being guilty of the folly of marrying." (See also *Wealth of Nations*, ed. by M'Culloch, 1863, pp. 62-65.) In spite, however, of protests, no substantial alteration was made in the law until 1795 (35 Geo. III. c. 101), when it was enacted that persons should only be removable *on becoming actually chargeable*. Henceforth, the main evils of settlement law lay in its complexity and costliness, rather than in its interference with the mobility of labour (see Labour, Mobility of); and it will here be sufficient, without endeavouring to trace each step of progress, to give a brief summary of the existing law.

Settlement is obtained (1) *by birth: Prima facie*, a person's settlement is his birthplace, and this rule applies to children (Coleridge, J., 14 Queen's Bench, p. 219). (2) *By parentage:* legitimate children follow the settlement of the father, and illegitimate that of the mother (sec. 71 of act of 1834), if such settlements can be shown, sixteen being the age of emancipation for both classes (Lord Watson, *14 Appeal Cases*, p. 484, interpreting the obscure 35th sec. of 39 & 40 Vict. c. 61). (3) *By marriage:* The wife follows the husband's settlement, if he have one; otherwise, she retains her maiden settlement. A widow keeps her late husband's until she acquires a new settlement (Common Law and 49 Geo. III. c. 124). (4) *By residence:* Settlement is obtained by three years' residence "without break," but a short absence, where there is *animus revertendi*, does not constitute such break (39 & 40 Vict. c. 61, § 34, and cases decided on § 8 of 28 & 29 Vict. c. 79). By this section, residence for one year "without break" gives irremovability, and the distinction between settlement and irremovability is often overlooked. Wherever settlement by residence takes the place of birth settlement, the effects of irremovability continue only while residence lasts, *e.g.* A has V for birth settlement; he acquires a settlement in X by three years' residence. He afterwards resides a year in Y, and is, for the time, irremovable. Afterwards, he goes to Z for some months, but returns to Y, and becomes there chargeable, before the expiration of a year from his return. His settlement is X, although, while he was irremovable in Y, that settlement was in abeyance. (5) *By apprenticeship:* Settlement is obtained by indenture or other deed, if the apprentice, in pursuance of the deed, reside forty days in a particular place (3 W. and M. c. 11, § 7). (6) *By estate:* Settlement by estate sprang from the rule that a man could not be removed from a parish where he had an estate of land, coupled with the effect of the act of 1662, giving settlement after forty days' residence. When the estate is by purchase, the consideration must be at least £30 (9 Geo. I. c. 7, § 5). (7) *By payment of parochial taxes:* The tenement must be *bonâ fide* rented for at least £10 a year, for the term of one whole year. The rent must have been paid and the premises actually occupied for at least one year (6 Geo. IV. c. 57, § 2). Settlement even now is limited to the parish, but this has become immaterial since the passing of the Union Chargeability Act 1865 (28 & 29 Vict. c. 79), which substitutes the union for the parish in respect of the poor rate.

The foregoing summary shows that the history of settlement is an admirable example of English methods of legislation. Practical inconvenience has been remedied, while logical symmetry has suffered. Numerous committees

of the House of Commons have recommended the total abolition of removals; a bill embodying this proposal was introduced by the president of the poor-law board more than thirty years ago; there is complete unanimity among all versed in the subject. But parliament has not yet found time to legislate, and the costs and technicalities of removals still go on. Meanwhile, it has been suggested that a partial remedy would be, to make compulsory the provisions of § 12 of 14 & 15 Vict. c. 105, which gives power to boards of guardians to submit disputes as to settlement to the central board.

With respect to the aged poor, the royal commission, 1895, recommended that legislation should be introduced, enacting "that persons over sixty-five years of age shall not, in general, be liable to removal." "The whole law of settlement," they reported, "is in its working exceedingly costly and complicated, and is one of the first questions needing attention in the general arrangement of the poor law. As regards the aged . . . there is a consensus of opinion that, if rigidly applied, it involves considerable hardship."

[The most exhaustive discussion of the history and theory of the question is in the *Report to the Poor-Law Board*, by G. Coode, 355 pp. Parliamentary papers, 1851 (675), vol. xxvi. The appendix contains a detailed examination of the reasons given for the introduction of the act of 1662, and valuable extracts from various authorities on settlement. See also Eden's *State of the Poor*, 3 vols., 1797.—Nicholls' *History of the English Poor Law*, 2 vols., 1854, 8vo.—Cunningham's *Growth of English Industry in Modern Times*, 1892, 8vo, p. 206.—*The Report of the Royal Commission on the Aged Poor*, 1895. The provisions of the existing law will be found in Symonds' *Handbook on the Laws of Settlement and Removal*, 3rd ed., 1891, 8vo; and Archbold's *Poor Law*, 14th ed., 1885, ed. by Glen.

Consult for whole subject Glen's *Poor Law Statutes*, vols. i. and ii. 1873; vol. iii. 1879. An admirable treatment of settlement will be found in Aschrott's *The English Poor Law System*, trans. by Preston Thomas, 1888, 8vo.] H. B. E.

SETTLING DAY. On the London stock exchange, bargains, except when expressly stipulated as being for cash, are made for the "settling" or end of the "account"—the "account" being a period of about a fortnight. The transactions of the account are closed in the last three days, *i.e.* for the first half of the month, from about the twelfth to the fifteenth; and for the second half, from about the twenty-fifth onwards. The first day is "contango" day, when arrangements are made for carrying over, or continuing bargains to the next account; the second is "ticket" day, when brokers pass tickets and names for stock and shares they have to receive; and the third day is "settling" day, for payment and delivery of cash and stocks.

Consols' Settling Days occur only once in each month, generally during the first week in the month.

Special Settlements. In the case of new shares or stocks, bargains are sometimes made for the "coming out," *i.e.* for settlement upon the issue of certificates in the new company, but in the majority of cases bargains are first made for the special settlement, which takes place upon a day appointed by the stock exchange committee.

On foreign stock exchanges the periods of settlement differ. In Paris they take place once a month; in New York there are no fixed settling days. R. W. B.

SEYD, Ernest (1833-81), was born at Elberfeld in Prussia. At an early age he visited the United States, and subsequently went to Paris, and was present during the revolution of 1848. Returning the next year to Germany, he took an active part in the revolutionary movement which resulted in the congress of Frankfort-on-Main, and the present German constitution. He was afterwards engaged in banking and exchange business in Paris, San Francisco, and London. On the adoption of the gold standard by Germany in 1873, he protested in the strongest manner against the change to a single gold standard, and foresaw with wonderful prescience the monetary dislocations that have since taken place. In his remarks on this subject E. Seyd's opinion coincided with, while it preceded, that of Prof. Walker, as to the prejudicial effect of the action of Germany on the trade of the world (Walker, *Money, Trade, and Industry*, 1880, p. 191). Ernest Seyd was also asked by the United States congress to report on the American Coinage Bill of 1873 then pending. Seyd's writings on banking, bullion operations, and kindred subjects are well known, and his persistent advocacy of the use of silver as a standard, and his opposition to the policy of demonetisation of that metal, constitute him a leading, if not the principal pioneer of the present "bi-metallic" movement in England.

Ernest Seyd had great influence in the arrangements of the German bank act of 1875. The provisions in §§ 9-10 under which the Reichsbank is allowed to exceed the authorised limit of issue on payment of a tax of 5 per cent on the excess, is believed to be due to his initiative. This plan has many advantages over that of the English bank act of 1844 (see German bank act of 1875. *Journal of Statistical Society*, 1875, also art. on Bank Note).

His principal works are those in English, all published in London:—*California and its Resources*, 1858.—*Bullion and Foreign Exchanges Theoretically and Practically Considered*, 8vo, 1868.—*The Question of Seignorage and Charge for Coining*, 8vo, Effingham Wilson, 1868.—*The Depreciation of Labour and Property which would Follow the Demonetisation of Silver*, 8vo, 1869.—

Letters to the Times. See the *Gold Coinage Controversy*, reprinted for private circulation by the Bank of England, 1869.—*Enquête sur la Question Monétaire*, published by the French government.—*Die Münz-Währungs und Bankfragen in Deutschland*, 8vo, Bädeker, Elberfeld, 1871.—*Suggestions in Reference to the Metallic Currency of the United States of America*, 1871.—*The London Banking and Bankers' Clearing House System*, 8vo, 1872 (translation in French, E. Guyot, Rue de Pacheco 12, Brussels).—*Reform of the Bank of England Note Issue*, London, 1873.—*The Decline of Prosperity; its Insidious Cause and Obvious Remedy*, 1878.

Ernest Seyd, son of above, is the author of *Bi-metallism in 1886, and the Further Fall in Silver.—The Silver Question in 1893.*

SHAREHOLDERS. A person who owns one or more shares in a company is called a shareholder in the company. The management of a company, except in very small private companies, is generally entrusted to a board of directors elected by the shareholders, but the latter have certain rights of control, which they exercise at general meetings or otherwise in accordance with the provisions of the articles of association. E. S.

SHARES. The capital in limited companies (except in the case of companies limited by guarantee, which in practice are of very small importance) must be subdivided into shares of fixed and equal amounts, which cannot be converted into STOCK (*q.v.*) until they are fully paid up. In some foreign countries a minimum amount is fixed for shares so as to prevent small investors from risking their savings in taking shares of speculative companies; thus in Germany the minimum amount of a share as a general rule is 1000 marks (£50). In France the minimum was formerly 100 francs (£4) in the case of companies having a capital of not more than 200,000 francs (£8000), and 500 francs (£20) in the case of larger companies; but since 1893 it has been reduced to £1 in the first-mentioned case and £4 in the last-mentioned case. In the United Kingdom a share may be of any amount from a farthing upwards. E. S.

SHEFFIELD, JOHN BAKER HOLROYD, Earl of (1741-1821), the friend and executor of Gibbon, wrote copiously on the poor and corn laws, Ireland, the slave trade, and other economic questions of his day.

He entered the army in 1760, but in peace intervals farmed his extensive lands at Sheffield Place, Sussex. As member for Coventry in 1780, he took a prominent part in the suppression of the Gordon Riots of that year, at the close of which he was created Lord Sheffield in the Irish peerage. As member for Bristol he vehemently opposed the abolition of the slave trade. On this as on the CORN LAWS, Lord Sheffield's views were extremely definite, but hopelessly insular and short-sighted. In advocating free trade with Ireland, and the Union, he proved himself, however, to be more than abreast of his times. He wrote:—

Observations on the Manufactures, Trade, and Present State of Ireland (1st ed., 2 pts., also 3rd ed., London, 1785, 8vo; another ed., Dublin, same year). After disproving the aspersions cast on the Irish character and industry, Lord Sheffield proceeds to deprecate all trade jealousies between the sister countries, showing how injurious to both a war of tariffs would be, since England takes the whole manufacture of Irish linens, while Ireland provides a valuable market for British woollens. The increase (p. 12) of the woollen manufacture in Ireland need not alarm British manufacturers; at the same time, the Irish are warned against irritating England by the attempted exclusion of her woollens from Irish markets. The volume closes with a lengthy commentary on the cattle produce, fisheries, and manufactures of Ireland.

Fourteen or fifteen years later, Lord Sheffield is consistently advocating the same economic policy, both in his *Speech* of 2nd April 1799, . . . *upon the subject of the Union with Ireland* (London, 1799, 8vo), as in his *Observations on the Objections made to the Export of Wool from Great Britain to Ireland* (London, 1800, 8vo). He concludes by re-advocating the Union from the point of view of commercial advantage, remarking that "as an Irishman, he was highly gratified by the liberality of giving the turn of the scale in almost every instance to the weaker country."

Observations on the Commerce of the American States (1st, 2nd ed., London, 1783, 8vo; 3rd to 6th ed., London, 1784, 8vo; new ed., Dublin, 1784, 8vo), which ran to six editions the second year of publication. The work is chiefly statistical, being a sort of comparative export and import calendar for the two countries, Britain, including the West Indies, and the American states. It contains fifteen tables; of these tables I. and II. give the amount of the American and West Indian staple commodities imported into or exported from Great Britain during the prosperous year 1773, and the disastrous 1782. III. The total of these exports and imports during a period of ten years, showing their fluctuations in peace and war, and the bad effect of war on commerce. IV. American imports from South Europe, Africa, and the West Indies. V. and VI. Exports from America to all parts. VII. The number and tonnage of the vessels employed by the colonies before the revolt. VIII. The state of the Newfoundland fishery before the war of 1744. IX. Imports and exports of South Britain from and to all parts. X. and XI. The value of all imports and exports of England and Scotland from 1780-1782. XII. The total of the imports and exports of South Britain from 1771-1782. XIII. The total imports and exports of South Britain to and from all North America from 1771-1782. XIV. The total imports and exports of South Britain to and from the United States from 1764-1782. XV. The imports and exports of South Britain to and from the British West Indies for twelve years, 1771-1782.

In his *Observations on the Project for Abolishing the Slave Trade and on the Reasonableness of*

attempting some practicable mode of relieving the Negroes (1st ed., 1790, 8vo; 2nd ed., with additions, 1791, London, 8vo), Lord Sheffield considered the disposition professedly of a great part of the community to relieve negroes from slavery "so inconsiderate that it disgraces the national character of good sense."

In 1791 appeared *Observations on the Corn Bill now depending in Parliament.* Lord Sheffield strongly opposed the bill on the ground that nothing could be more dangerous than the dependence of a kingdom such as this on other countries for subsistence. He decries the notion that England is a highly cultivated country, pointing out that not one-fourth of it was worthy of such a description. He advocates a higher and steadier price of corn, to be secured by closing the ports to foreign corn, and bringing more inferior land under tillage instead of using it for pasture; and expresses the curious economic doctrine that a high price of corn is advantageous to our manufactures. He prefers to depend on other countries for clothing than for food. "Why should we give a monopoly of the supply to the manufacturers of wool, and not to the manufacturers or tillers of land?" This pamphlet is written in a protectionist spirit, in the interest of the farmer and landowner rather than in that of the consumer.

Lord Sheffield held the same views to the close of his life. *Letter on the Corn Laws, and on the means of obviating the mischief and distress which are rapidly increasing* (London, 1815, 8vo; 2nd ed., 1815). In this publication he deprecates the application of general principles to the political economy of this country, considering its actual taxation and the price of labour. He would protect the British farmer by an absolute prohibition of import until the price of wheat rises to 80s. the quarter; then a high duty till it is at 90s.; and a lower high duty till it is at 100s.; then open the ports and let it enter duty free.

Lord Sheffield's *Strictures on the necessity of inviolably maintaining the Navigation and Colonial System of Great Britain* (London, 1804, 8vo; new ed., with appendix, 1806, 8vo), point out that the NAVIGATION LAWS had been suspended by recent temporary legislation; and the danger of such a course "because such suspension must render England a free port, of the consequences of which," Lord Sheffield conceives, "neither the legislature nor the country are sufficiently aware" (p. 11). He further shows the violation of the navigation laws to be "injurious to every branch of our marine; discouraging to seamen, and to the shipbuilding trade; and adverse to the prompt equipment of a great naval force." He comments on the extraordinary decline of British, and the increase of American tonnage (p. 15); and (p. 33) differs totally from the opinion of M. GENTZ, that the navigation laws are "commercially injurious," but "politically wise."

Lord Sheffield's presidential addresses at the wool meetings of Lewes were collected and published in a volume *On the Trade in Wool and Woollens, including an exposition of the Commercial Situation of the British Empire* (London, 1813, 4to). He notices the diminution of export of British manufactures to the American states; defends the ORDERS IN COUNCIL promulgated in answer to the BERLIN DECREES prohibiting English goods on the continent; and tries to show how little the trade of the country depends on a direct traffic with the American states; the English and colonial markets being, he says, quite sufficient to consume the greater part of our manufactures. He advocates the importation of Spanish sheep for breeding purposes.

Observations on the impolicy, abuses, and false interpretation of the Poor Laws, and on the Reports of the two Houses of Parliament (London, 1818, 8vo). In it he strongly condemns the present management of the poor as a disgrace to the policy and political economy of the country. In many parishes the heavy onus of the poor rate has so ruined the small tradesman as to have added to rather than relieved the existing number of paupers. He advocates the abandonment of the whole system, not patching it up; the separation and classification of paupers, the education of pauper children, and their separation from criminal parents. He would further apply to agricultural employment the surplus of the pauper population. In the following year Lord Sheffield published his *Remarks on the Bill of the Last Parliament for the amendment of the Poor Laws, with observations on their Impolicy* (London, 1819, 8vo). A. L.

SHERBROOKE, VISCOUNT (Robert Lowe), (1811-92), was educated at Winchester and Oxford, taking a first-class in classics and a second-class in mathematics. He was called to the bar, but in 1840 went out to New South Wales. The colony was in its infancy; gold had not been discovered, and only the rudiments of representative government existed. Lowe speedily took part in every public movement in the colony, and after holding for a time a seat in the legislative council he resigned this to become member for Sydney. He interested himself in all social, political, and industrial movements. After playing a conspicuous part in the development of the colony, he returned to England in 1850, and two years later was returned to the House of Commons for Kidderminster.

He quickly made his mark as a debater, and as a sleepless critic of the administrative departments. In a short time he became vice-president of the board of trade—an office which he held for three years—and one of the joint secretaries of the board of control. This part of his official life was not without results bearing upon the trade and economic conditions of the nation. Though we do not owe to him the full adoption of the principle of limited liability, he introduced measures which led up to the act of 1862. Few clearer or more cogent arguments for reform have been presented to parliament than that contained in his speech in 1856, introducing the Partnership and Joint-Stock Companies Bills.

In 1859 Lowe was returned for the borough of Calne by the influence of the Marquis of

Lansdowne ; and he represented London University from 1868 until he went to the Upper House in 1880 as Viscount Sherbrooke. During 1859-64 he was vice-president of the education board—and virtual minister for education. In this capacity he made several changes in our educational system. In 1860 he brought forward the revised code, and the system of payment by results, on the merits of which he never ceased to insist, but which is being rapidly obliterated as practically unworkable.

In constitutional matters Lowe inclined towards the school of Canning and Peel. He held the office of chancellor of the exchequer in Gladstone's first liberal ministry. The post, however, was one for which he was ill-fitted, owing to his doctrinaire views. These led him to remove the registration duty on corn, and to express the opinion that a chancellor of the exchequer was one who pays out the public funds, not one who controls the expenditure. It was in 1870, during his tenure of the office, that the Coinage Act of 1816 was annulled. This act contained a clause authorising the crown at any moment, by order in council, to reopen the mint to the public for unlimited coinage of silver, subject to a seigniorage of 4s. an ounce. His decision that the income-tax should be paid *in advance*, helpful for the finance of the year when instituted, has remained a permanent inconvenience. Yet his first ingenious budget was received with considerable favour in the outset, and his annual surpluses proved to be large, almost beyond example. He exerted himself to keep down the public expenditure, but his brusque treatment of all claimants on the public funds brought him no little unpopularity. This odium was accentuated by his ill-starred proposal for a match tax, an impost excellent in theory, but practically impossible owing to the popular feeling aroused against it. This was somewhat aggravated by the classical dictum, "Ex luce lucellum." He was also the author of an unsuccessful plan for establishing SEIGNIORAGE on the coinage.

To the last Lord Sherbrooke was an active member of the Political Economy Club.

[*Biographies of Lord Sherbrooke*, by Patchett Martin and J. F. Hogan, 1893 ; *Annual Register*, 1892 ; *Chambers's Encyclopædia*, vol. ix. ; *The Times*, July 28th, 1892.] G. B. S.

SHERIFF. In Anglo-Saxon time the sheriff, or shire-reeve, was the royal officer in the shire, and was always appointed by the king. His chief function was to look after the interests of the crown, and especially to collect the proceeds from demesne lands and the royal share in the profits of justice. The Norman Conquest witnessed a great increase of the powers of the sheriff. Hitherto the ealdorman had been the presiding officer in the shiremoot and the leader of the military forces of the shire. This office was now abolished, and its functions added to those of the sheriff or *vicecomes*. Henceforward the sheriff became the chief military, judicial, and financial officer in the shire. He was responsible for the collection of all taxes, though many of the older dues he was allowed to farm and to pay in a fixed sum twice a year. The office was now of such importance that it was often held by powerful barons, and in the reign of Stephen many sheriffdoms were practically hereditary. The kings now found it necessary to impose limitations on their too powerful servants. The EXCHEQUER was organised to supervise their financial administration, and twice a year, at Easter and Michaelmas, the sheriffs had to appear at Westminster to pay in and to give a strict account of their receipts. In 1170 a great inquest or inquiry was held into the conduct of the sheriffs, and Henry II. seized the opportunity to get rid of the baronial holders of the office, and to fill their places with his own trained servants. During the same reign regular circuits were instituted of itinerant justices, and one of their chief functions was to check and supervise the local administration of the sheriffs. From this time the powers of the office steadily declined. In Magna Charta (art. 24) the sheriffs were forbidden to hold pleas of the crown. Their judicial and police duties were gradually curtailed by the appointment of conservators, and later of justices, of the peace. In 1258, by the Provisions of Oxford the office was made annual, and for a time under Edward I. the freeholders of the shire obtained the right of election. But this was only temporary, and under Edward III. the modern practice was instituted of nominating the sheriffs every year in the exchequer. The last great diminution in their powers took place in the reign of Queen Mary (1516-58), when the control of the militia was taken from them and entrusted to lords lieutenant. From this time, in spite of the dignity and precedence to which a sheriff is entitled during his year of office, the post has come to be regarded rather as a burden than a privilege. Its chief duties are the reception of the justices of assize, and the responsibility for enforcing judicial sentences within the shire. The sheriff also has, either in person or through his under-sheriffs, to make all arrangements for parliamentary elections during his terms of office. Although the sheriff is strictly and etymologically a shire officer, the city of London obtained from Henry I. the right of appointing sheriffs, and several of the older boroughs, such as Norwich and Oxford, still have sheriffs of their own.

[Stubbs, *Constitutional History*.—Gneist, *Englische Verfassungsgeschichte*.] R. L.

SHILLING. English silver coin of the value of twelve pence, first struck in the reign of Henry VII.

The following list gives the weights of the various shillings issued since that time :—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Henry VII. . .	1504	144	925	1/7¾
Henry VIII. .	1543	120	833·3	1/2¾
Edward VI. . .	1547	120	333·3	/6d.
Edward VI. . .	1549	80	333·3	/4d.
Edward VI. . .	1552	96	925	1/1¼
Mary . . .	1553	96	921·25	1/1
Elizabeth . .	1560	96	921·25	1/1
Elizabeth . .	1601	92¾	925	1/0¾
James I. to George III.	1603 to 1816	92¾	925	1/0¾
George III. and subsequently	1816 onwards	87¼	925	1/

The origin of the word shilling is obscure, but it appears to have been handed down from Anglo-Saxon times, when fourpence equalled a scill or scilling. F. E. A.

SHIP-MONEY. From 1629 to 1640 Charles I. endeavoured to govern without a parliament. In order to avoid exceptional expenditure, it was necessary during these years to keep England out of the great struggle which was going on in Europe. But though England was neutral, Charles was constantly negotiating in the hope of obtaining the restitution of the palatinate to the dispossessed elector. And to give weight to his diplomacy it was necessary to make some parade of English strength, while the growing naval power of France and Holland made it imperative for England to take some steps in the same direction. This was prescribed both by the motive of self-defence and by the desire to maintain the sovereignty of the seas which Charles claimed for this country. Under these circumstances the king and his ministers sought to devise some means of obtaining money for naval expenditure without having to appeal to parliament for supplies. Noy, the attorney-general, suggested that under the Plantagenets, and as late as 1626, it had been customary for the crown to call on the sea-ports to man and equip ships for the defence of the realm. Acting on this hint, the council issued a writ on 20th October 1634, ordering the authorities of the coast towns to assess on the inhabitants the money necessary for fitting out and maintaining for six months a certain number of ships and the requisite crews.

This writ departed from earlier precedents only in two points: (1) it demanded money instead of actual services, and thus imposed something nearly akin to a tax, whereas by the petition of right the king was pledged to levy no taxes without consent; (2) previous levies had been made in time of actual warfare, while this was to meet a prospective danger which might be very variously estimated. However, the writ met with no resistance, except from the citizens of London, and they had to give way. This success emboldened the crown to take a much more serious step in the next year. By a writ dated 4th August 1635, the sum of £208,900 was demanded, and this was to be collected, not only from the dwellers on the coast but from the whole community, on the ground that all were equally interested in the defence of the country. The last assertion was difficult to contest, but it was felt that it was put forward to defend a wholly novel expedient, and it was difficult to perceive that there was any danger so pressing that it must be met before parliament could be consulted. Thus the second writ of ship-money provoked much more general opposition than the first, and in spite of the zeal of sheriffs and justices of the peace, it was difficult to carry out the work of assessment and collection. In order to justify compulsion, the king obtained a written opinion signed by ten out of twelve judges to the effect that when the kingdom was in danger the charge of defence ought to be borne by the whole kingdom, and further that of such danger the king was the only judge.

Meanwhile the fleet that had been equipped had effected nothing, the royal diplomacy was as far from its end as ever, and more than £20,000 of the money due under the last writ was still unpaid. Charles determined to persist, and the third writ of ship-money was issued again to the whole kingdom on 9th October 1636. This was a practical assertion that ship-money was not a mere temporary expedient to meet a passing danger, but that it was to be an annual charge on the community. It might be true that the sums hitherto collected had been spent on the navy, but there was no security that this would continue, and if the king could raise a secure revenue at will, there need never be another parliament. Many of the peers were not prepared to entrust the crown with such absolute power, but their remonstrances, instead of weakening the king's resolution, only impelled him to extort a favourable opinion from the judges, so that they might be pledged to decide in favour of the crown any case that might be brought before them. The judges again affirmed—(1) that in time of danger the king may command all his subjects to provide and furnish such number of ships and for so long as he shall think fit; and (2) that the king is the sole judge of the danger and the means of meeting it.

Thus the decision of the judges was a foregone conclusion when, in 1637, the question of the legality of ship-money was brought before them in the case of John Hampden. Hampden's counsel argued that the king's control over the

persons and property of his subjects could only be exercised in a normal way through parliament; they admitted that in an extraordinary crisis the crown could act without waiting for parliament, but denied that in the present case there was any evidence of such pressing and immediate danger. The crown lawyers replied that the question of fact was not before them, that the king was in law the sole judge as to when an emergency arose, and that behind the king's judgment the court could not go. As a matter of strict law this contention was probably sound, but under the circumstances it was opposed to the common sense of the community. However, seven out of twelve judges decided in favour of the king, and some of them, notably Chief Justice Finch, went out of their way to magnify the royal prerogative. But the victory of the crown, complete as it appeared at the time, was very short-lived. In 1641 the Long Parliament declared ship-money illegal, and impeached the judges who had decided against Hampden.

[Gardiner, *History of England*, vols. vii. and viii. State Trials.] R. L.

SHODDY[1] is the name given to the waste of various manufactures, as for instance to that of coal or iron; but the term has become particularly associated with the re-manufactured refuse of cotton and woollen yarn. This refuse consists of the tangled or broken remainders of cotton or woollen yarn which are left by the weaver upon the reels, and are commonly referred to as "cop-bottoms" or "cop-refuse." As this "refuse" cannot be further utilised in the manufacture of fine woollen or cotton cloth, it is sold in the mass by the Lancashire or Yorkshire manufacturer (it is occasionally sent from the Indian factories) to the manufacturers of shoddy, and is by them re-converted into "shoddy cloth" by a wonderfully ingenious mechanical process.

The whole mass is first thrown into a series of "tearing" cylinders, filled with toothed rollers of graduated fineness, which, revolving at high speed, tear the yarn refuse back into a substance closely resembling, and only to be distinguished by an expert from, the original American bale cotton. By this tearing process, however, the original cotton fibre is wholly destroyed, and the artificial fibre thus produced is at once too short and too fragile to permit of it being drawn out for purposes of fine spinning. It is therefore "carded" and spun into a coarse yarn, and then used merely as the "weft" in the manufacture of "shoddy" cloth or calico, as owing to its fragile and artificial nature it will not bear the strain necessarily put on the "warp" in the weaving process.

The "warp" of shoddy cloth has therefore to be supplied by yarn spun from pure American cotton, such as is used in ordinary weaving; and it is the stoutness of this "warp" which gives strength and endurance to the woven "shoddy" material.

"Cotton" shoddy is manufactured chiefly in Lancashire, in the district of Rochdale, Haslingdon, Bolton, Bacup, and Crawshaw-Booth. Woollen shoddy is manufactured at Bradford, in Yorkshire. The material is warehoused as taken from the loom, and sold to dyers and printers for the home trade. In the same factory various qualities of shoddy are produced, from the heavy habit and cheap tailoring cloths to the coarse sheetings, and cheap shirtings, largely in demand among dock labourers. Some of this "shoddy" calico is specially woven and dressed for the Levant trade, where the coloured shawls made from it find a ready market. The manufacture of "shoddy" also creates a further "refuse" from which, by a similar process to the one described above, the "cops" are again broken up into an artificial fibre, then spun into a very coarse yarn, and woven into the well-known cheap Bolton quilts and coverlets. A. L.

SHORT, THOMAS (1734-1772), M.D., was a physician and meteorologist:—

He "collected, with incredible labour, extracts from the mortuary and baptismal registers in a great many market towns and country parishes of England, chiefly in the northern counties, and in almost every variety of soil and situation, and reduced them into tables in various ways so as to enable him to draw useful inferences from them" (Milne, *Ency. Brit.*, quoted in M'Culloch's *Literature of P. E.*). The result of these labours appeared in *New observations, natural, moral, political, and medical, on city, town, and country bills of mortality* (London, 1750). This consists of statistical tables of respective parishes with their registers of births, deaths, marriages, their soil and situation, and average death-rate. Also *A Comparative History of the Increase and Decrease of Mankind* (London, 1767). A. L.

SHORT EXCHANGE. The rate for cheques or drafts at sight, or payable within a day or two. There being no question of interest involved, the variations of the short exchanges above or below the MINT PAR (*q.v.*) is the measure of the momentary balance of trade,—including therein the movement of floating capital. R. W. B.

SIGHT (=DEMAND). Formerly, it was customary to claim and allow three days' grace upon bills drawn "at sight," but they are now payable immediately, as if they were drawn "on demand." Bills drawn at any period after sight require presentation for acceptance before the term begins to run. R. W. B.

SILIO, GUGLIELMO (end of the 18th century), a Sicilian mathematician and economist who advocated the application of the calculus to the solution of the most important economic problems. Following BECCARIA, who had already

[1] For economic use of such articles, see RESIDUAL AND WASTE PRODUCTS.

attempted a mathematical inquiry on smuggling, he prepared a series of problems to determine the best means for suppressing smuggling. Silio demonstrates, by means of a mathematical analysis, the error of supposing that a constantly increasing revenue would be obtained by continually raising the customs duties, and that moderate duties would yield a better financial result and would diminish smuggling, increase consumption, and stimulate foreign trade.

Saggio sull' influenza dell' analisi nelle scienze politiche ed economiche applicata ai contrabbandi, Palermo, 1792.

[See Montanari, *La matematica applicata al l'economia politica, etc.*, Reggio Emilia, 1892.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, Rome, 1881.] U. R.

SILVER.

Silver, as Standard, p. 395; Silver, Discoveries of, p. 396; Silver Legislation in the United States, p. 401.

SILVER AS STANDARD. Wherever silver coins are full legal tender and constitute the money in which commercial exchanges and values are measured, and where other coins are rated in their relation to silver coins, the silver standard may be said properly to exist. A still further condition is really necessary, namely, that the mints of a country having the single silver standard must be open to the free coinage of silver. These conditions were very generally fulfilled in all countries during most of the period from the middle ages down to the beginning of this century. Gold was also used, of course, as money, but its position in coinage was an undetermined one, and it was mainly considered as to its value measured in silver.[1]

Great Britain began the race for gold in adopting the gold standard in 1816, and to-day the above named conditions are imperfectly fulfilled, and that only in Mexico and a few minor countries in Central and South America (see SILVER, DISCOVERIES OF). Many of the leading nations have passed through, or are still in an intermediate stage of monetary development in which there is officially a double standard combining gold and silver according to some established legal ratio. In recent years, however, the conditions affecting the production and consumption of the precious metals have, by their differing variations, made the task of maintaining both metals in circulation so difficult that the so-called double standard countries have nearly all suspended entirely the coinage of full legal-tender silver coins, and have taken all sorts of steps to protect and add to their stock of gold. Within the year 1897, just closed, Japan, Chili, and Salvador have adopted the gold standard. India is on a fiat-money basis, and has closed her mints to silver and is trying to introduce gold payments at a parity of 1s. 4d. as the exchange value of the rupee. Russia has officially adopted the gold standard, but has a depreciated paper circulation based on silver, which she now agrees to maintain at a fixed ratio in gold, and is making an effort to secure enough gold. The Indian government has discussed the possibility of doing the same.[2] Strictly speaking, China never has had any other than a copper standard so far as the legal conditions for a standard are concerned, though of course silver has been, and still is, the basis of exchange values in all her dealings with foreign countries.

The great revolution therefore that has taken place in the monetary status of silver, and the completeness with which the whole civilised world has discarded it as a standard, are facts which will doubtless be considered as the most significant in the general economic history of this century. This movement has been chiefly confined to the period since 1873. The results of it are still a matter of grave doubt, and they have certainly given rise to considerable debate and have produced an enormous supply of economic literature on monetary topics.

The first and perhaps most direct result of the abandonment of the silver standard and of the greatly increased demand for gold for monetary uses in recent years, has been a considerable appreciation in the value of gold. The supply of gold has increased materially, however, and may continue to increase so as to partially neutralise further tendencies towards appreciation. It is claimed that the general downward tendency in wholesale prices has been due in part to this appreciation; and in further support of such claim, it is stated that prices in silver-standard countries, up to recent times, remained steadier than in gold-standard countries. This point is, however, disputed. It does seem to be true that the fluctuations have not been so great in silver-standard countries, but it may be true that in those countries other than monetary causes affecting prices, and tending to lower the general level of prices, have been proportionately absent or inoperative. A mass of evidence, on this point, with complete statistics of prices in eastern countries, is to be

[1] In the 17th century "silver" and "money" may be regarded as synonymous, and the expression "argent" for "money" is familiar. Thus Locke, *Further Considerations of the lowering of Interest and raising the Value of Money*, says "that the fittest metal to be 'the money of account and contract and the measure of commerce in any country' is silver."

[2] Both India and Russia are really on a "fiat-money" basis so long as the respective governments are holding silver in the one case and paper currency in the other at a fixed parity with gold by legal enactment. Russia is, however, accumulating a stock of gold, and both seek to secure the gold standard in the future. For account of recent legislation, see Lexis, articles on "Papiergeld," and "Münzwesen," in Conrad's *Handwörterbuch, Zweiter Supplementband*, Jena, 1897; and H. P. Willis, "Monetary Reform in Russia," art. in *Journ. of Pol. Econ.*, June 1897, Chicago.

found in the report, minutes of evidence, and more especially in the appendices, of the Indian Currency Committee. In an English consular Report on China, and one dealing particularly with the effect of the fall in value of silver on prices of commodities in China (Foreign Office, 1893, Miscel. Series, No. 305), we note the following statement in commenting on the tables of statistics: "As regards articles which are both produced and consumed in China, silver prices have on the whole tended to decline (during last twenty years). There is a moderate rise in a few articles, principally food stuffs, but all over there is a decline of about 9 per cent. As regards articles of native origin exported to foreign countries, the silver price has not advanced with the fall in exchange. Prices on the whole are almost exactly on the level of the years 1870 to 1874. As regards articles of foreign manufacture or production imported for sale in China, the average price in silver has declined very considerably."

The second and main argument concerning the effect of the fall in the gold value of silver refers to the fact that the falling rate of exchange, especially in relation to long-period contracts, has acted as a bounty on exports and as a protective tariff on imports for the silver-standard country. The argument in favour of this position is stated strongly by Mr. E. Held in his volume on *The Joint Standard* and finds some support in the evidence presented to the Indian Currency Committee. That its general effect on the condition and prosperity of India has been greatly exaggerated is also amply shown by evidence from the same sources. Most contracts are not long-time contracts, and, while credit may have been somewhat curtailed as a result of this cause, there were really no serious commercial fluctuations after the banks began to balance exchanges and cancel the result of such fluctuations in exchange, and thus insure their respective customers in both countries from losses of this character.

[For literature on this topic, see first of all the reports of the Indian Currency Committee, 1893, C. 7060; C. 7098; C. 7060-I; minutes of evidence and appendices (the most complete source of information), C. 7060-II; Index, C. 70-86. This report has been reprinted by the U.S. Gov. under the title of "The Herschell Report on coinage of Silver in India," 825 pages, Sen. Mis. Doc. 23, 53rd Cong. 1st Sess., price $1·20.—Held, *The Joint Standard*, London, 1894.—Muhleman, *Monetary Systems of the World*, 2nd ed. 1897, New York.—Del Mar. *Hist. of Money*, London, 1885.—U.S. Special Consular Reports, "Money and Prices in Foreign Countries," vol. xiii. pt. i., Washington, 1896, pt. ii., Washington, 1897.—"Silver in China," Talcott Williams, *Annals of Amer. Acad.*, vol. ix., 1897.—The "Currency of China," Willard Fisher, *Yale Review*, March 1897.—"Silver Prices in India," Fred. J. Atkinson, *Journ. of Royal Statistical Society*, Mar. 1897.] (See BI-METALLISM; GOLD AS STANDARD; MONEY; PRECIOUS METALS.)

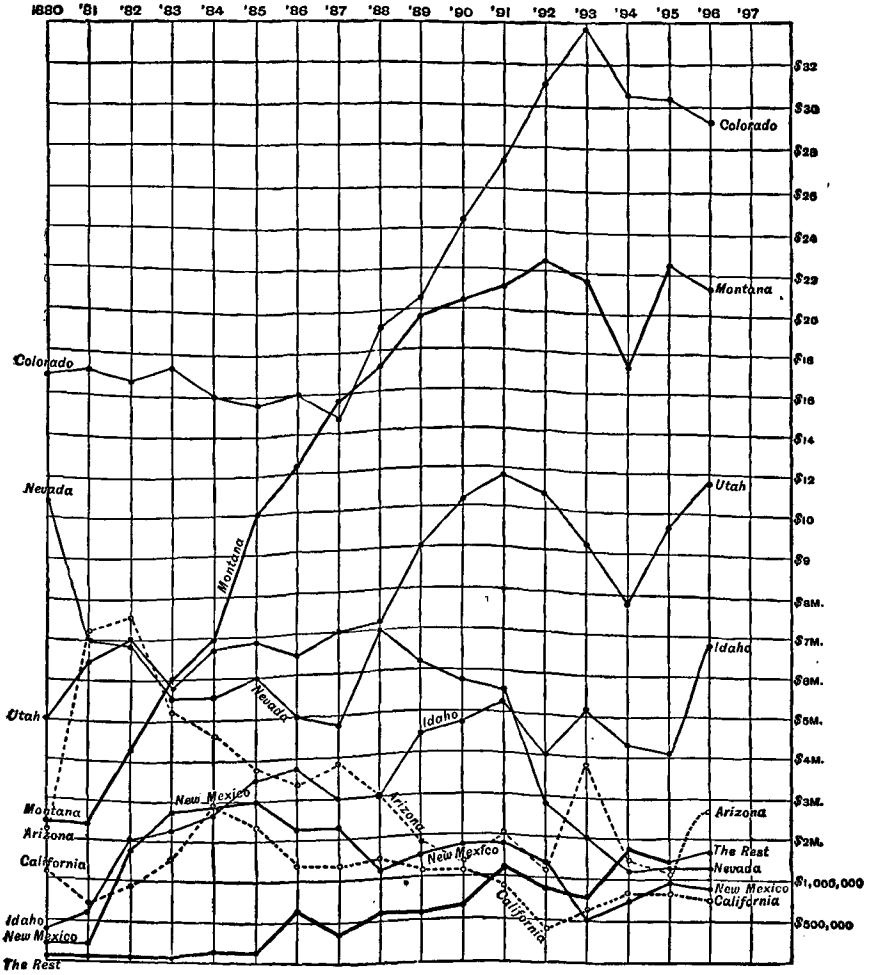
S. M'C. L.

SILVER, DISCOVERIES OF. There are no authentic accounts of the discovery of any silver mine in antiquity, although there were silver mines in almost every known state except Italy. New sources of supply of the precious metals were opened up by conquest, and not by adventure. Adventure and discovery play a large part in the history of mediæval and modern mining; and the stories retailed by Jacob (*Inquiry into the Precious Metals*, i. 241, etc.) of the discovery of Chemnitz in Hungary (745 A.D.), Freiburg in Saxony (10th century), and the Hartz (972 A.D.), are paralleled by the stories of the sleeping shepherd at Pasco in Peru (1630, Tschudi's *Peru*, p. 328), the sleeping hunter at Chañarcillo, Chili (1832, Browne's *Mineral Resources of the United States*, 1868, p. 650), the falling hunter at Potosi (about 1640, Acosta's *Peru*, iv. 6), a lady at a picnic at Utah (1863), or by some of those "moving accidents" which make Lord's "Monograph on the Comstock Lode, Nevada" (discovered 1859, *U.S. Geological Survey*, 1883) read like a romance. Another illustration of the different attitude of mind in antiquity and in comparatively modern times is that while the modern business man keeps accounts which are a fairly accurate foundation for statistical generalisations, and while travellers' guesses, such as those embodied in Acosta's or Robertson's *History*, bear no relation to the truth, we find neither business accounts nor wild guesses about ancient mines; but Herodotus's allusion to the Laurian mines in Attica (vii. 144; Boeckh's *Public Economy of Athens*, app. ix.; Büchsenschütz, *Besitz und Erwerb*, etc., p. 102; but see Grote's *History*, vol. i. 154 n.), and Strabo's allusion to the Turdetanian mines in Spain (iii. 2, 9), probably present sober statements of truth. It is fair to contrast ancient with modern history in these respects because they were separated by a great gulf; mining, it appears, was discontinued under the Roman empire until it was tentatively resumed by the Moors after the Moorish conquest of Spain in the 8th century.

Amongst the many interesting productive problems raised in connection with silver discoveries, it is a universal rule that new supplies, instead of superseding, stimulate existing sources of supply. Thus the cession of part of Mexico in 1848 and 1853 to the United States enabled the latter to commence mining, and its success reacted upon Mexico in a manner which recalls the effect produced by silver-mining in the new world upon silver-mining in the old world three or four centuries ago. The reason of this apparent paradox is that new supplies beget new inventions which directly affect the production of silver but not of gold—for instance, first, by adding to the

brief life and, therefore, usefulness of the product; secondly, by facilitating its production; thus Medina's cold amalgam (1557) and the numerous processes (Pattinson, Karsten, Parkes, Cordurié, Lauthertal, etc.) invented between 1842 and 1869 for extracting silver from lead ore "have been equivalent to the discovery of new mines" (Jevons, *Currency*, p. 76; Prof. Roberts Austen, "Memorandum on Cost of Production of Silver," app. vi.,

Distribution of Production of Silver among the different States of the U.S. Compiled from U.S. Mint Reports. Compare Annual Reports of the U.S. Geological Survey, entitled *Mineral Resources of the United States*, and compare note (K) p. 399.



N.B.—$ U.S. coining value, *i.e.* 1000 dollars=773 ounces (fine) approximately.

Report of Gold and Silver Commission, 1887). Again, between the time of Job and 1848 (*Papers Relating to the Californian Gold Discoveries*, 1856, p. 47) silver lay in, gold on the earth. What bad mining means may be judged by "A Miner's Notes on the Silver Mines of Honduras" (*Harper*, 1856, vol. xii. p. 721), or Jacob's history of the mine of Guadalcanal in Spain (*Precious Metals*, vol. i. p. 274).

Passing to exchange questions, the effect of the earlier American discoveries was gradually ripening in England between 1570 and 1648, at which date wheat had risen 250 per cent, and grain generally 220 per cent, according to Thorold Rogers, who agrees in the main with A. Smith (see, too, Cunningham's *Growth of English Industry*, § 168). The effect on the ratio between gold and silver is illustrated

by the table printed in the article PRECIOUS METALS. The *Reports of the Committee of the H. of C. on the Depreciation of Silver*, 1876, and on *Gold and Silver*, 1887 and 1888, point out that the U.S., where the main discoveries were being made, actually decreased its exports of silver during one critical period, 1873-79, when the ratio was falling; and, further, under the Bland Act 1878-90 and Sherman Act 1890-93, 459,946,700 fine ounces of silver were bought for coinage by the federal mint, which had been comparatively idle up to 1871. It is, or was in 1888, in spite of this new demand for silver in the U.S.—a demand far exceeding any similar demand in any civilised country in the whole history of coinage—that silver fell. Perhaps the still greater amount of the new demand relatively to the new supply of gold—due to the increase of banking reserves (£187,500,000, 1873-85, *Quarterly Journ. of Econ.*, i. 350, J. L. Laughlin), and institution of new gold coinage by France from 1850 (Cairnes, *Essays*, p. 142,—£100,000,000), and Germany from 1870 (£100,000,000, Rep., 1888, § 38)—has made silver fall relatively to gold—if so, the history of the Roman empire affords a close parallel; there, while silver was becoming dearer because it was diminishing four times as fast as gold, this natural tendency was reversed by a social and political tendency—the tendency, namely, to hoard gold and exchange a silver for a gold coinage, so that the ratio fell from 11·91 to 14·4 : 1, at which figure it probably stood between 397 A.D. and Justinian's time (Mommsen's *Verfall des römischen Münzwesens*, p. 277; cp. *History of Rome*, trans. Dickson, ed. 1894, iii. 88; *Geschichte des römischen Münzwesens*, p. 834). But this theory is unnecessary to explain the first, and is inapplicable to the subsequent depreciation; thus U.S. exports of silver did not fall during the second critical period, 1884-89, and in the third critical period, when silver cheapened, 1891-94, they rose from 23 to 51 million dollars. And, further, it is quite possible that state-made ratios which held when the output of silver was 20 million ounces a year (1840) would hardly have done so when it was three (1870) or eight times (1893) as much. Regulation of prices has never succeeded, except on a small scale. This problem will be again discussed after the tables of production and consumption.

As for the distributive questions raised by Chevalier's *De la Baisse d'or*, Cairnes's answer in his essay on Chevalier, that prices rise because wages are raised, and that wages are first raised at the mines, then in those industries which are nearest to the mines, whether locally or industrially, is probably correct.

Estimates of Production of Silver.—The following estimates of silver produced during different periods are most often cited in works on political economy:—

Humboldt's *Nouvelle Espagne*, 1811, iv. 212, 218, 220.—Jacob's *Inquiry into the Precious Metals*, 1831, ii. pp. 70, 131, 214, 267.—J. T. Danson's "Gold and Silver sent from America to Europe," 1850, *Journ. of the Statistical Society*, xiv. 11.—Birkmyre's "Letter to the *Times*," xxi. 5, 1852 (for 1846-50), cited in M'Culloch's *Commercial Dictionary*, art. "Precious Metals," and in D. F. Campbell's trans. of Chevalier's *Production of the Precious Metals*, 1853, pp. 93 *et seq.*—Chevalier's article in *Revue des Deux Mondes*, 1846, xiv. 1033, 4; and "De la Monnaie," which is pt. iii. of his *Cours d'Éc. Pol.*, 1842-50, pp. 222, 228, 307, etc. (cited in Tooke's *Prices*, vi. 144).—Faucher's *Production of the Precious Metals*, etc., 1851, Eng. trans., 1852.—J. D. Whitney's *Metallic Wealth of the U.S.*, etc., 1854, pp. 182, 183, 506 (esp. 1800, 1845, 1850, and 1854).—J. A. Phillips's *Mining, etc., of Gold and Silver*, 1800-67 (esp. 1800, 1850, 1865), p. 320.—W. P. Blake's *Production of the Precious Metals*, 1869, p. 361.—Sir Hector Hay's "Tables," 1850-76, printed in app. 6*b* to the *Report on the Depreciation of Silver*, 1876.—Baron Reinach, 1852-75, trans. in *Banker's Magazine*, N.Y., Oct. 1876, and cited in Walker's *Money*, 1878, p. 237, and others.[1] See also Adam Smith, "Digression concerning the Variations in the Value of Silver," *Wealth of Nations*, bk. i. ch. xi.

In 1879 Dr. Soetbeer published his *Edelmetall-Produktion* as a supplement (vol. xiii. No. 57) to Petermann's *Mittheilungen aus Perthes' geographischer Anstalt*, a work which has superseded every other authority on the subject. Dr. Soetbeer admits in his *Materialien*, 1886 (trans. in app. xvi. to the *Report* of 1888, p. 149), that missing links of evidence may be found which will make it necessary to revise the entire work, meanwhile it is not worth while to seek to mend his calculations after the fashion of Professor Lexis (*Jahrbücher für Nationalökonomie*, xxxiv. 361, etc.). Dr. Soetbeer utilises every shred of evidence hitherto obtained, and fills in *lacunæ* as best he may. After 1850 his table of odds and ends is arbitrarily divided between America and Australia, etc., otherwise the figures on p. 399, down to 1880, are, with a few abbreviations, etc., transcribed from Dr. Soetbeer's work of 1879, and an essay of his on the same subject in Conrad's *Jahrbuch*, 1881.

Estimates of Consumption of Silver.—In the table on p. 400 estimate enters more or less largely into all figures

[1] R.W. Raymond's summary of the estimates of Phillips (1800, 1850, 1865), Birkmyre (1846, 1850), Whitney (1854), and Blake (1867), shows a general agreement between these estimates as to the relative importance of different nations and periods. Humboldt's estimates for America were derived, in many cases, from the registers of the state tax on the product of each mine; Danson supplements this information with consular reports, *e.g.* those published in app. iv. No. 7 to the Report of 1876; and Soetbeer adds collections of documents relating to Mexico and Bolivia, published 1864 and 1875, Laur's treatise in *Annales des Mines*, 1871, etc.; but Humboldt's estimates are still used where there is no direct authority. Humboldt's estimates for Europe are derived from Héron de Villefosse, co-editor of the official *Journal des Mines*, and author of *De la Richesse Minérale*, 1810-11; and from Georgi's *Geogr. Phys. Beschreibung des Russischen Reichs*, 1797-1800. Jacob added André's *Neueste Zahlenstatistik*, 1823, to his own observations. Chevalier and Danson utilised Duport's *De la production des metaux précieux au Mexique*, 1843, for modern Mexico.

earlier than 1831, and the same leaven still leavens the most recent lump sums for industrial use. But exports to the east have, during this century, and especially since 1835, presented trustworthy statistics, and reliance can now be placed upon them (see note *d*, p. 400). These exports amounted (1701-1895) to 2,645,220,000 out of 5,831,940,000 fine ounces, or 45 per cent of the total consumption. This item is but lightly affected by

Average Annual Production of Silver in 1000 *oz. Troy of Fine Silver, transcribed and adapted from Soetbeer.*

	Progressive Stage.				Stationary Stage.						
	1495-1520	1521-1544	1545-1560	1561-1580	1581-1600	1601-1620	1621-1640	1641-1680	1681-1700	1701-1720	1721-1740
Europe[a]	1,511	1,897	2,006	1,559	1,328	945	868	844	977	1,070	1,485
Mexico[b]	..	109	482	1,614	2,389	2,611	2,886	3,172	3,543	5,266	7,420
South[c] and Central[d] America.	..	894	7,529	6,456	9,751	10,040	8,950	7,290	6,472	5,096	4,958
All the known world[e]	1,511	2,900	10,017	9,629	13,468	13,596	12,654	11,306	10,992	11,432	13,363

	Progressive Stage.			Retrogressive Stage.	Progressive Stage.						
	1741-1760	1761-1780	1781-1810	1811-1830	1831-1840	1841-1850	1851-1860	1861-1865	1866-1870	1871-1875	1876-1880
Europe[f]	2,027	2,355	2,551	2,635	2,779	4,215[g]	6,650	7,814	8,596	13,122	14,268
Mexico[h]	9,677	11,780	17,989	9,272[i]	10,642	13,513	14,691	15,207	16,747	19,348	21,084
United States[k]	..	..	..	..	..	..	233	5,594	9,678	18,158	31,529
Rest of America[d]	5,437	6,851	7,883	4,190[l]	5,755	7,362[m]	6,896	6,465	7,709	12,868[n]	11,574
Rest of world	..	..	..	..	..	..	822	822	822	822	822
All the known world	17,141	20,986	28,423	16,097	19,176	25,090	28,792	35,402	43,052	63,318	78,777

Average Annual Production of Fine Silver Compiled from the Annual Tables, and Printed in the Annual Mint Reports of the United States.

	Oz. Troy of Fine Silver.		
	1881-1885	1886-1890	1891-1895
Germany	4,689,117	963,010[q]	5,944,378
Austria	1,473,950	1,681,675	2,006,686
Russia	325,847	442,459	352,726
Spain	2,006,237	1,655,826	2,109,730
France	498,658[o]	2,008,648	2,086,742
Rest of Europe	1,051,811	1,106,531	2,010,320
All Europe	10,045,620	7,858,149	14,510,582
United States	86,575,683	46,208,970	56,323,038
Mexico	22,566,233	33,645,338	45,007,047
Peru, Bolivia, Chili.	16,113,281	15,283,807	22,058,574
Rest of America	1,045,784	2,201,777	4,306,138
All America	76,300,881	97,339,892	127,694,797
Australia	252,930	3,938,688[r]	14,907,822
Japan, etc.	672,657[p]	1,219,219[p]	1,829,183[p]
All the World	87,272,088	110,355,948	168,941,884

[a] About three-quarters must be credited to Germany and Austria in almost equal shares, but Austria yielded twice as much as Germany, 1495-1544; Germany twice as much as Austria, 1721-40.

[b] Spaniards arrived in Mexico, 1519; the silver plunder and ransom was about 835,900 oz. Zacatecas was worked, 1548, but ineffectually till 1558. At this time some mines, chiefly in S. Luis, Potosi, and Central Mexico, were also worked and gradually improved. Guanaxato was worked 1558 to about 1600, but ineffectually.

[c] Spaniards came to Peru, 1533. Potosi, the chief of the three great silver mountains of Peru, was opened, 1545. The silver yield of Potosi attained its maximum, 1581-1600, and 1601-20, when it averaged respectively 8,176,000 oz. and 6,619,000 oz. per annum. Pasco, the second greatest silver mountain of Peru, discovered 1630. Chili first counts, 1721.

[d] The contributions of Central America are trifling.

[e] China, etc., not included.

[f] Tarassenko Otreschkoff, *De l'or et de l'argent*, says that Nertchinsk, the first Russian mine, was discovered in 1691, Kolyvan in 1723 (pp. 132-34); Kolyvan began to be fruitful, 1744; Nertchinsk, 1775.

[g] This rise was due to discoveries near "Alicante," Spain, 1843-1845, alluded to in E. Levasseur's *Question d'or*, 1858; M'Culloch's *Comm. Dict.*, p. 1124; cp. Phillip's *Mining, etc., of Silver*, p. 326. Spanish mining had been dormant, 1493-1827.

[h] Guanaxato, the richest silver mine of Spanish America, was re-discovered, 1760. In 1785-90 Guadaxato, S. Luis, Potosi, Zacatecas, and Central Mexico yielded two-thirds the silver produced by New Spain. The Mexican mining districts credited with increase, 1861-80, were the same; they yielded then five-sixths the silver produced by Mexico.

[i] This shrinkage was due to the Civil War.

[k] "Silver-mining in the U.S. may be said to have only begun in 1860" (*Geological Survey, Mineral Resources of the U.S.*, 1883 *et seq.*, 1st annual vol., p. 181), and it first exported silver in 1864. In the seventies the Comstock Lode, Nevada, rose steadily from 4,822,500 oz. in 1871 to 15,496,600 oz. in 1876, its record year (Lord's "Monograph," app. ii.), and then rapidly fell. Utah yielded its first silver in 1870. Leadville, the silver capital of Colorado, was only christened 1877 (Emmons' "Monograph" in *U.S. Geol. Survey*). The Eureka district (Nevada) (Curtis' "Monograph") and Arizona (*Banker's Magazine*, N.Y., 1878, p. 811) began to be of importance at the same date.

[l] Gualgayoc, the third silver mountain of Peru, discovered, 1771.

[m] This expansion was due to the discoveries in the "Atacama" Silver Desert, Chili, 1829-31, 1831-48, etc. (see Philippi's *Reise*, 1853-54, p. 112).

[n] Bolivia rose from 2,893,500 oz. *p.a.* (1866-70), to 7,155,000 oz. *p.a.* (1870-75), owing to the increased yield of Caracoles.

[o] First reckoned separately in 1882.

[p] Almost exclusively Japan; China is not included.

[q] This does not represent a decline in German production, but an altered mode of calculating it by excluding foreign ores (*U.S. Mint Report*, 1889, p. 166).

[r] *U.S. Mint Report*, 1886, p. 182; 1891, p. 228.

political events; thus though the Indian mints were closed, 26, vi., 1893, net exports to the east from England and the States totalled in 1891, 43; in 1892, 80; in 1893, 92; in 1894, 87; and in 1895, 58 million ounces; and the last figure, which is nearly the same as those for 1896 and 1897 is nearly one-third more than the average figure for 1886-90. The question how much of this vast supply in the eastern reservoir consists of hoards, and therefore does not affect prices, is all-important but insoluble; and the question how far it exists as coin, or in other active forms, though soluble is irrelevant; for in the east coin, ornament, use and hoarding are hardly distinguishable. As a matter of curiosity, out of 79,000,000, the average for 1891-95, 46,000,000 can be traced into or as coin; but perhaps imperfections in the United States' tables of recoinages and old material may reduce this figure by a million or so. Whether as coin or hoard, nearly half the silver of the world is dammed

Average Annual Consumption of Fine Silver in 1000 *oz. Fine Silver.*

	Net Exports to the East.			Other Use.			
	From England, Mediterranean, and United States, to India, China, Straits, etc.	From Holland to Dutch Possessions; *plus* trifling Levantine and Russo-Chinese Trade.	Total.	New Material used in Arts and Manufactures.	New Material used in Coinage *less* coin exported to the East. (Actual Recoinages of old Coin, and 10 per cent Estimate for other old Material deducted.)	Loss by Abrasion.	Total Average. Annual Consumption.
1701-1810	..	..	4,112[e]	5,888[f]	6,200[f]	1,800[b]	18,000
1811-1830	..	..	3,938[e]	4,561[f]	5,502[f]	1,500[b]	15,501
1831-1850	5,799[a]	1595	7,394[b]	6,751[b]	12,056[b]	1,575[b]	27,776
1701-1850	..	..	4,526	5,826	6,887	1,730	18,970
,, (%)	..	..	24	31	36	9	=100
1851-55	17,496[b]	3224[b]	20,720	8,680[b]	−14,468[b]	1640[b]	16,572
1856-60	48,965[b]	3225[b]	52,190	8,680[b]	−14,468[b]	1640[b]	48,042
1861-65	47,570[b]	6185[b]	53,755	9,967[b]	−11,252[b]	1511[b]	53,981
1866-70	19,055[b]	6185[b]	25,240	9,967[b]	−11,252[b]	1511[b]	25,466
1871-75	20,469[b]	3276[b]	23,745	14,468[b]	+ 4,300[h]	1480[b]	43,993
1876-80	43,528[b]	3276[b]	46,804	15,143[b]	+17,500[h]	1480[b]	80,927
1881-85	38,465[cd]	3055[c]	41,520	16,868[g]	+28,869[h]	964[b]	88,221
1886-90	42,884[cd]	4894[c]	47,778	20,909[g]	+32,721[h]	964[b]	102,372
1851-90	34,804	4165	38,969	13,085	+ 3,994	1399	57,447
,, (%)	61	7	68	23	+ 7	2	=100
1891-95	78,860[i]	2640[k]	81,500	30,992[l]	24,350[h]	863	137,705
,, (%)	..	..	59	22	18	1	=100

[a] *Report of Committee on Depreciation of Silver*, 1876, App. 26 *c*, 28 *b*, give annual Indian statistics, 1835-75.

[b] Soetbeer, *Edelmetall-Produktion*, 1879, p. 136, etc.; *Jahrbuch für National-Ökonomie und Statistik*, ed. Conrad, N. F., 1881, vol. ii. p. 347; vol. iii. pp. 121, 195, etc., III^te F., 1891, vol. i. pp. 518, 563, etc.; *Materialien*, 1886, transl. in Report of Gold and Silver Commission, 1888; *Litteratur-Nachweis*, 1892.

[c] Actual re-exports to Europe from India, 1881-90, have been deducted; also those from Straits, 1885-87, and Chinese Treaty Ports, 1889-90. They amount (1886-90) to only 2 per cent. Soetbeer under-estimates re-exports from Java (1886-90) by at least 130,000 oz., according to Straits Settlement Reports, 1885-87, or possibly more, 1881-85, according to Van der Berg, *Rep. of G. and S. Commission*, 1888, App. vi. Otherwise he is followed.

[d] Official reports of average annual net imports into India by sea, 1881-90, =27,011[000] oz.; into the Straits, 1885-87, =1520[000] oz.; into Chinese Treaty Ports, 1889-90, =457[0000] oz.; into Aden, Ceylon, Mauritius, Java, Mekran, Somniani, Persia, Philippines, Abyssinia, Mozambique, Zanzibar, Malay, Siam, Corea, Japan, Cochin-China, and Java, from India, =2147[000] oz.; from Straits =4055[000] oz.; from Chinese Treaty Ports =56[000] oz., in those respective years; and French silver coinages for French possessions, 1887-90, =1093[000] oz. (Soetbeer); total, 1881-90, 40,452[000] oz. The total in the table is based on exports from Europe and United States, and =40,674[000] oz. Though Chinese statistics are not quite satisfactory, as amongst other things silver and gold have to be separated by estimate, yet this comparison is sufficient to show that the results for these years are accurate.

[e] Van den Berg and Helferich, respectively, as cited by Soetbeer.

[f] Estimate.

[g] Soetbeer, corrected as to United States statistics by United States Mint Reports (see Table xliv. in Mint Report of 1896, which apparently excludes from new materials "foreign bullion." Totals adopted for United States are, 1881-85, 4008[000] oz.; 1886-90, 4887[000] oz.

[h] United States Annual Mint Reports, deducting trade dollars, etc., meltings of foreign bullion, and recoinages. Totals in 1000 oz. are, 1876-80, 17,500; 1881-85, 20,832; 1886-90, 24,683; 1891, 17,521; 1892, 3515; 1893-95, 1874 p.a. (average). The purchasing clauses of the Sherman Act were repeated, i. xi. 1893. United Kingdom annual reports give (1) coinage, (2) old silver sent in, and (3) net exports since 1873; (2) and (3) and 10 per cent for old material is deducted. Otherwise Soetbeer is followed until 1890. After 1890, the United States Mint Reports of coinages and (known) recoinages, etc., of the world, are followed; the east being of course excluded, also Mexico, Central and South America.

[i] English net exports to India, Straits, Japan, China, and Egypt, as given in the *Annual Statement of the Trade of the United Kingdom*, for 1895 and 1896; *plus* United States ditto; *plus*, French coinage, for Indo-China, etc., and Spanish coinage for Philippines, and German for Zanzibar, etc., and Egypt.

[k] Dutch gross exports of silver *plus* former estimates for land trade, etc.

[l] United States figures give 6277[000], 1892; 6082[000], 1893; 7206[000], 1894; 8,167[000], 1895. French figures give 4728[000], 1892; 4548[000], 1893; 4988[000], 1894 (De Foville, *less* 10 per cent for old materials), and 6076, 1895 (United States Mint Report, *less* as above). Total 11,005, 1892-10,630, 1893; 12,194, 1894; 14,243, 1895. For other figures see Lexis in Conrad's *Jahrbuch*, 1896, p. 507.

up in the east; and the strength of the dam depends on a state of mind which, though it has existed ever since history began, may some day cease to exist, as it has already begun to cease to exist in Hayti, and Japan (1897). If it ceased to exist, nearly half the existing, and more than half the future silver supplies would be let loose on the civilised world, to which however the east would then belong. It is to be remembered that this possible revolution in the conditions of demand only menaces silver, it does not menace gold.

We have excluded from the category of coinage Mexican, South, and Central American coinages; as, first, no check can be placed on their recoinages and use of old material; secondly, most drifts eastward and westward, and finds its way into other columns; thirdly, the trade dollar is usually accepted as an article of merchandise, and it seems irrelevant to distinguish it from bullion. The figures for the United States exclude some 168,000,000 ounces of bullion purchased under the Sherman Act 1890-93, except in so far as it has been coined; the reason for this is that we have no guarantee that the residue which (30 vi. 1897) amounted to 115,438,461 ounces, will be ever coined.

Production and Consumption Compared.—From 1701 to 1850 production probably exceeded consumption by 40,000,000 oz., *i.e.* by 1½ per cent. The average ratio of silver to gold fell from 15·27 (1701-10), to 15·83 (1841-50), or 3½ per cent.

Next, between 1850 and 1870 the ratio rose 1 per cent to 15·55 (average for 1866-70); meanwhile supply fell short of demand by 40,000,000 oz., or 4 per cent of the supply during that period. In 1870 there was an apparent balance, but it was only apparent. Between 1850 and 1870, what Soetbeer calls "latent reserves," consisting of hoards, etc., must have returned into circulation to some extent, and that perhaps was why the ratio rose as little as it did.

Between 1871 and 1875 production exceeded consumption by 96,000,000 oz., and the first great fall in the ratio occurred from 15·63 in 1872 to 18·40 in 1879; this process was then arrested, and the 96,000,000 was reduced successively to 85,000,000 in 1880, and 81,000,000 in 1885. During the next four years the second great fall in the ratio occurred, from 18·57 in 1884 to 22·10 in 1889; and the hanging balance of 81,000,000 of idle ounces was simultaneously increased to 121,000,000. The third fall of the silver ratio from 23·72 in 1892 to 32·96 in 1894, synchronised with a final excess of production over consumption which raised the 121,000,000 to 227,000,000. Out of these 227,000,000 the stores of bullion accumulated under the Sherman Act account for 125,000,000 oz.; and the residue, probably in the form of redundant trade dollars, makes Mexico, Peru, Bolivia, and until lately Chili, pay double what they used to pay for every imported commodity. The same result has been produced in the east, by such of the eastern exports as are not hoarded. In addition to the 227 surplus millions of ounces, we must reckon Soetbeer's "latent reserves," which however cut both ways; inconvertible paper currencies in Brazil, Buenos Ayres, and until lately in Chili, driving silver out of sight, while commerce elsewhere lures hidden silver back to the light of day. We will therefore leave this unknown quantity alone.

There have been then three successive doses of 96, 40, and 106 millions each spread over 5 years. Against the idea that an increased coinage of 19, 8, and 21 millions per annum during those respective periods of five years would have counteracted the fall of the ratio, must be set the fact that consumption has increased nearly sixfold in 25 years, 1870-95; and that this sixfold increase is inconceivable without a corresponding decrease of price. Thus had coinage taken off the surplus silver without altering its price, it is possible that exports to the east might still register only 20,000,000 a year, industrial use only 10,000,000, and that the residuary 129,000,000 a year would deluge the mints of civilised states; but it is impossible to suppose that this could take place without lowering the gold-value of silver coin. Silver would have certainly fallen, and the ratio to gold would have to have been revised more than once; and what civilised states would have lost by the immense purchases which they would have made, and by recoinages, it is impossible to estimate. The influence of mints may be easily overrated. Large quantities of silver have never been bought by civilised states for coinage before 1870; although large quantities of coined silver were sold for gold between 1851 and 1870, sales which could not have been effected but for the eastern demand. Experience therefore takes us but a little way; but it proves that what actually saved Europe from the silver flood, and what helped France to exchange a silver for a gold coinage, was the strange silver thirst of the east. The eastern demand has alone kept pace with the unprecedented increase of the supply; and it is idle to speculate whether a combination of civilised silver-coining states might or might not have effected at a far greater cost and without any accruing benefit to themselves, and with but little better results to the silver owner, the task which the east silently effected.

J. D. R.

SILVER LEGISLATION IN THE UNITED STATES. The coinage of silver as well as of gold was authorised by the general coinage act of 1792, and full legal-tender quality was given to the silver dollar. By the act of February 12, 1873, the dollar coin was omitted from the list of silver coins, and consequently authority for its coinage ceased; and in 1874 the legal-tender power of silver was limited to an amount not exceeding $5 in one payment. With regard to the motives and methods which led to this legislation, there has been much prolonged and bitter dispute; the advocates of silver coinage asserting that the omission of 1873 was brought about without fair notice or discussion. By the act of 28th February 1878 (BLAND ACT, *q.v.*), provision was made for the purchase of a limited amount of silver at the market price by the government, of not less than $2,000,000 or more than $4,000,000 monthly, which should be coined into dollars, as provided in act of 1837. The seigniorage was paid into the treasury. The amount within these limits was left to the discretion of the secretary of the treasury, and during the twelve years in which this law was in operation the minimum purchase was adhered to. As silver depreciated in value this provided for the purchase of about thirty million silver dollars a year. Authority was also given for the issue of silver certificates of larger denominations upon the deposit of silver dollars. This legislation was brought about by the prevailing conviction in congress that a larger supply of money than gold could furnish was needed, and by opposition to the contraction of the currency; and was a compromise for the original bill of the house of representatives which provided for the free coinage of silver without limit. The existence of a struggle is indicated by the fact that the measure was passed over the veto of the president. As Prof. Taussig remarks (*The Silver Situation in the United States*, p. 7), "This characteristic of the measure, it need hardly be said, was the result not of any deliberate intention to try a new experiment, but of the spirit of compromise which explains so many anomalies in the legislation of democratic communities." An attempt was made by the banks belonging to the New York clearing-house to prevent the use of silver in their mutual settlements. On the other hand, to encourage the use of silver, congress appropriated funds for the use of the treasury

department to ship silver free of expense to all applicants in any part of the country. Again, in 1886, congress authorised the issue of silver certificates in denominations of one, two, and five dollars (30th June). By the act of 14th July 1890, as the result of further popular agitation for a still more extended use of silver, another compromise measure, popularly known as the Sherman Act, was enacted, providing, in place of the legislation of 1878, for the purchase of silver bullion to the amount of 4,500,000 ounces monthly, or so much thereof as may be offered at the market price not exceeding $1·00 for 371¼ grains of pure silver (equivalent to $1·2929 per ounce), and for the issue in payment thereof of treasury notes. Of this purchased silver, so much should be coined, after 1891, as was necessary to provide for the redemption of such special treasury notes as might be presented in exchange for silver. As, however, it was the policy of the treasury department to redeem these notes in gold if demanded, there was little call for the full coinage of silver on this account. The treasury notes thus issued are a complete legal tender. This act was repealed in 1894, and at the present time (1898) there is no general authority for the purchase of silver for coinage purposes. The operations of the Sherman Act are well presented in the annual reports of the director of the American mint.

The following table exhibits the operations under the law which went into effect 13th August 1890 to 30th June 1897 :—

Silver bullion purchased, 168,674,682 fine oz., cost		$155,931,002
Bullion coined into dollars, 53,236,220 fine oz., cost		51,594,689
Balance (after allowance for wastage), 115,438,461 fine oz., cost		104,336,312
The bullion produced about	$68,750,000	
After deducting seigniorage (over $17,000,000), there remain for redemption of treasury notes		51,594,689
Treasury note issue		$155,931,002
Redeemed in silver and cancelled		41,063,722
Outstanding 30th June 1896		$114,867,280

[F. W. Taussig, *Silver Situation in the United States*, New York, 1893, originally published by the American Economic Association, No. 1, vol. 7, in its *Publications*.

The demonetisation of silver in 1873 is discussed by F. A. Walker in *International Bimetallism*, London and New York, 1896, pp. 183-187; also in *Bimetallism in the United States*, by J. L. Laughlin, New York, 1886, pp. 92-105; also in *Money and Banking*, by H. White, New York, 1896, pp. 213-223. For the legislation of 1878 see also Laughlin as above, pp. 179-204.]

D. R. D.

SIMON, JAMES (*ob.* 1757).

A native of La Rochelle, settled in Dublin, where he was a merchant, joined the Physico-Historical Society, became F.R.S. (1748), and published his *Essay towards an Historical Account of Irish Coins* (1749), with eight plates, appendices containing acts, etc. This work was based on Sir J. Ware's and Bishop Nicholson's work, but was, according to Ruding (*Annals*, pt. ix.), who is echoed by J. R. M'CULLOCH (*Literature of Pol. Econ.*, p. 163) and M. Chevalier (*Dictionnaire de l'Ec. Pol.*) "the most valuable of all the publications upon the coinage of any part of the united dominions"; and J. Lindsay has added but little to what he calls its "extreme accuracy and deep research"; *View of the Coinage of Ireland* (1839). There are good criticisms on portions of his work in the *Numismatic Chronicle*, 3rd ser. i. 310; ii. 308. The edition of 1810 embodies Snelling's *Supplement* (1770) with three additional plates, and also a fourth plate.

[*List of the Fellows of the Royal Society* (1664-1797).—*Catalogue of Coins sold 1757.*—*Notes and Queries* (1857), p. 9, (1896), vol. x. p. 24.]

J. D. R.

SIMONY. See PATRONAGE.

SIMPLE CONTRACT. A term used to describe contracts not couched in the form of a deed under seal. All such contracts, even though they be in writing, which is in some cases required by law, are simple contracts. Consideration is necessary to the validity of every simple contract. The right of action arising under a simple contract is available for six years after the date fixed for performance. Creditors under simple contract can prove in bankruptcy equally with creditors under a contract by deed (see CONTRACT, LAW OF; SPECIALITY DEBT).

F. C. M.

SINCLAIR, SIR JOHN, Bart. (1754-1835), was brought up to the law, but never practised. He sat in parliament for Caithness in 1790 and 1807, and afterwards for several English constituencies. His public activity was many-sided and untiring, both in practical work and in literature, but it was to agriculture and finance that he devoted most attention. A society for the improvement of British wool was established by him at Edinburgh, and he was the main mover in the institution of the BOARD OF AGRICULTURE. Of this board he became president. In the same year he suggested and promoted the restoration of public credit, after several bank failures, by the issue of exchequer bills; but in 1797, standing aloof from government, he distrusted their bank restriction act, though he afterwards gave it his approval.

His chief contributions to agricultural literature are the *Statistical Account of Scotland*, a valuable

compilation, the making of which he directed, and the *General Report of Scotland*, drawn up by the board of agriculture, and of internal improvement, which he superintended, writing himself the introduction and the conclusion. In this work he advocated a "judicious system of encouraging regulations," for instance, experimental farms at the public cost, protective duties on imports and bounties on exports, and the improvement, by government help, of the means of communication, such as roads and bridges.—*Report on the subject of Shetland Wool* in 1790, and an *Address to the Landed Interest on the Corn Bill* in 1791. In the department of finance, besides several pamphlets or books on joint-stock enterprises and banking, he wrote *Hints on the state of our Finances*, 1783, and *History of the Public Revenue of the British Empire* in 1785 (3rd edit. 1805). This is full of detail without neglect of general principles, plentifully illustrated with tables, and ample in its treatment of later periods, though rather insufficient, in the light of modern knowledge, for the earliest periods. Particular attention is given to the national debt and to Pitt's financial administration. His views of the future of the revenue were sanguine.

[*Memoir* by Rev. John Sinclair, his son.—*Dict. of Eminent Scotsmen.*—*Dict. of Living Authors*, 1816, with considerable list of his writings.] E. G. P.

SINECURE. A sinecure (*sine cura*) may be defined as an office to which only nominal duties are attached. Such offices have abounded at certain periods both in church and state. In France, before the revolution, they were very numerous. The *abbés*, so frequently mentioned in French history and literature, were ecclesiastical sinecurists. By the concordat of 1516, the French crown acquired the right to nominate *abbés commendataires* of certain monasteries. These persons received a large proportion of the revenues, but had no share in the government of their respective houses. They were not required to reside, and they did not always take orders. Similar abuses prevailed in the neighbouring countries. The celebrated General Prince Eugene was known as "Monseigneur l'Abbé de Savoie," because he was titular abbot of San Michele in Chiusa. The civil administration of France also swarmed with sinecurists. The governorships of the different provinces had hardly any duties attached, the real administration being in the hands of the "intendants." Just before the revolution the governorship of Guienne was valued at 120,000 livres, and the governorship of Languedoc at 160,000 livres. In the court, too, sinecures abounded. The royal kitchen alone comprised 295 officers, most of whom had little or nothing to do with the preparation of the royal repasts. The household of the infant daughter of Louis XVI. numbered 80 persons, chiefly serving for show. Though the evil was gravest in France, it was not trifling in England. Down to 1783 the royal household contained many well-paid offices which served chiefly as means of parliamentary corruption. Thus the king's turnspit, as Burke tells us, was a member of parliament. But the most lucrative sinecures were those connected with the treasury, the places of the tellers, the auditors, and the clerk of the pells. As these officers were paid by fees and percentages on the monies which passed through their hands, the work being done by deputies, their profits were always growing. In 1783 a fixed salary of £2700 a year was assigned to the tellers. In 1812 Lord Camden, the last of the tellers appointed under the old system, surrendered to the state all the profits in excess of this salary to which he would have been entitled. By this liberality on his part the treasury saved £244,400 in twenty-two years.

Various causes have tended to multiply sinecures. Offices which had once been important, but had been rendered useless by changes in administration, have been retained either through sheer neglect or as a means of influencing an aristocracy or a parliament. At other times, offices which were useless from the beginning have been created to swell the pomp of a court. In France, under the old monarchy, the creation and sale of sinecure offices was a familiar means of raising money when the treasury was exhausted. The general suppression of sinecures in the 19th century has been brought about partly by the better control of governments by the tax-payers, and partly by the pressure of needful expenses which makes frugality imperative. The growth of bureaucracy tends, however, to produce a number of petty sinecures. In some states, notably in Italy and Greece, the officials are far more numerous than their work requires.

The existence of sinecures has sometimes been of advantage to men of real merit in science or letters. Many eminent Englishmen in the 18th century held sinecure offices. Sinecures such as the presidency of the council or the chancellorship of the Duchy of Lancaster serve as a provision for statesmen who are useful in the cabinet, though unable to undertake a department. A few ornamental sinecures in a court are harmless if the stipend is nominal. But speaking generally, sinecures must be considered pernicious abuses. They exhaust the revenue, they encourage idleness, they assist corruption, and are obstacles to administrative reform. Their multiplication is a sign of political decay; their suppression a symptom of political vitality.

[For examples of sinecures, see the literature and general histories of France and England in the 18th century; Taine, *Ancien Régime*.—Burke, *Speech on Economical Reform*.] F. C. M.

SINECURES, COLONIAL. One of the most discreditable political abuses on record was that of conferring posts of responsibility in the colonies on men in England who took no personal part whatever in the duties, and never went out even to see the colonies where their office lay. They were simply devices for extracting fees in order to furnish incomes for

court favourites at first, for parliamentary partisans later on. The abuse ran on for nearly two centuries. The offices were conferred by letters patent, and the patentees at once appointed deputies *en permanence*. In fact they put the office up to auction; the lessee to pay over a certain amount, do the work, and get what he could. The proportion of revenue allotted to the work is illustrated in the letting of an office estimated at £1050 for £840 a year. Of course the holders of the leases had to squeeze out fees to the utmost from the unfortunate colonists. The perniciousness of the system needs no demonstration, but it is strikingly shown in the fact that, owing to the comptrollership of customs at Kingston, Jamaica, being a patent office, fees on shipping in that port were five times higher than those in the Atlantic ports after the independence of those colonies.

These abuses prevailed over all our colonies and plantations where crown offices were concerned. In 1814 it appears that the "colonial secretaryship," *i.e.* the chief administrative office under the governor, was in the hands of absentees in *every* one of our colonies. The climax of abuse was, however, inflicted on the great colony of Virginia which had to pay an absentee governor, the Earl of Orkney, for forty years.

In vain did the colonial legislatures protest; in 1699, 1711, 1715, they passed acts against non-residence; but the absentees lived near Westminster, and these acts were "disallowed." At last, in 1782, Lord Lansdowne, secretary of state, forbad the issue of more non-resident licenses; but the colonial fees were too convenient for government purposes to be parted with hastily, and it was sixty years before reform was effected. In 1814 there were still 94 such offices, held by 55 absentees—several had more than one—and of these 90 had been issued since Lord Lansdowne's order. But the atmosphere of the approaching reform bill proved effective, and by 1834 they had been reduced to 6, and soon they disappeared.

A. C.

SINGLE TAX, THE, is the ordinary name for the proposal "to obtain all public revenue, national and local, by taking as nearly as may be all the rental value of natural opportunities, without regard to improvements." This, however, is only the fiscal side of the proposition. The real problem, as stated in George's *Progress and Poverty*, is to discover the law which associates increasing want with advancing wealth, the cause of "recurring industrial depressions, and of the tendency of wages to a minimum which will give but a bare living." Advocates of the single tax find this cause in the institution of private property in land. The proposed method of collecting public revenue, by appropriating economic rent to public services, and leaving to producers of wealth the exclusive enjoyment of their entire product, will, it is believed, reverse the present tendency of wages and interest to a minimum and cure the evils arising from the unjust and unequal distribution of wealth. The proposition is to abolish all taxation save that upon land values. The argument for the proposition rests upon a distinction between the wealth produced as the result of individual effort (wages and interest) and that which results from the aid given by the community as a whole to individuals (economic rent); or as otherwise expressed, between the product of industry on land at the margin of cultivation and the greater product of any industry more favourably situated. "Economic rent" is identified with unearned increment (see INCREMENT, THE UNEARNED). The effects which are expected to follow from the adoption of the single tax are:

1. That it would "lift the whole enormous weight of taxation from productive industry," opening new opportunities for the investment of labour and capital.

2. That it would "counteract the tendency to inequality."

3. That "all classes whose interests as land owners do not largely exceed their interests as labourers or capitalists, or both, would directly gain."

4. That "greater simplicity would be possible in government."

Physiocratic writers had favoured a LAND TAX upon grounds not unlike those now put forward by advocates of the single tax, and John Stuart Mill was president of a society for the promulgation of the idea that future unearned increment should be appropriated by the state. But the modern single taxer proposes not merely the appropriation of the future increment, but also the confiscation of all existing land values to the amount "that will leave the least selling value by which the action of the market will serve to measure assessments and make sufficient return to induce private individuals to act as real estate agents without direction of government." It is argued that to leave land owners in possession of their present incomes would be to continue a wrong against society.

Herbert Spencer, in *Social Statics*, deduced the right of each man to the use of the earth from the law of equal freedom, and held that the maintenance of this right necessarily forbids private property in land. (This has since been retracted by him). The recent tendency among advocates of the single tax is to place the weight of their argument upon the principle that the rental value of land justly belongs to the community, rather than upon the economic and social blessings to be obtained from the measure. It thus becomes a question of ethics rather than of economics. Economic prosperity could not survive the carrying out of the pro-

posal, as the mainspring of individual energy would be broken.

[See the writings of Henry George: *Progress and Poverty* (New York, 1879); *Social Problems* (New York, 1884); *The Land Question* (New York, 1888).—Alfred R. Wallace, *Land Nationalisation* (London, 1882).—F. A. Walker, *Land and its Rent* (Boston, 1883).—W. T. Harris, *The Right of Property and the Ownership of Land* (Boston, 1887). Discussion by Henry George, E. R. A. Seligman, and others, published by the American Social Science Association (Concord, Mass., 1890; also arts. on DOVE and T. SPENCE.] E. T. D.

SINKING FUND.

History of the Sinking Funds, p. 405; Walpole's Sinking Fund, 1716, p. 405; Sinking Fund, 1717-1758, p. 405; Sinking Fund, 1786, p. 405; W. Pitt's Sinking Fund, p. 405; Vansittart's Sinking Fund, 1813, p. 406; Principle of a Sinking Fund, p. 407.

A sinking fund is a fund formed by the investment of annual savings or other contributions with a view to the ultimate application of the moneys so accumulated in payment of a previously incurred public debt.

The mismanagement of certain attempts to form a sinking fund for Great Britain during the 18th century discredited the term, which has been held up to ridicule by many writers on finance as representing an illusory and unscientific expedient. This, however, is to mistake the abuse of a thing for its use.

It is a sound policy in finance to begin making gradual provision for the repayment of a loan from an early period in the currency of the loan. It is practically impossible in national finance to arrange for the payment of large masses of debt at one time. It is of little use as a matter of experience to devote the surpluses of good years to reduction of debt. The payment of interest on a debt has become so much part of a nation's life that it seems easier to let it run than to make a sacrifice and repay it. But if a regular annual provision over and above the interest be put by every year for the purpose of forming a capital fund and for ultimate use in repaying the debt, it becomes a sort of sacred obligation, which it is discreditable to shirk.

The authors, therefore, of the earlier sinking funds were on a sound basis as far as principles went.

History of the Sinking Funds.—Although there seem to have been certain earlier germs of a special fund for repayment of certain debts (see 8 & 9 Will. III. c. 20 in 1697 and other later acts), the first plan for the discharge of the national debt formed on a regular system was Sir Robert Walpole's sinking fund, which was finally established in 1716 (3 Geo. I. c. 17); the terms of the act establishing it enacted that the surplus of certain specified duties and funds "shall be appropriated, reserved, and employed to and for discharging the principal and interest of such national debts and incumbrances as were incurred before the 25th December 1716, and are declared to be national debts and are provided for by act of parliament, in such manner and form as shall be directed or appointed by any future act or acts of parliament to be discharged therewith or out of the same, and to or for none other use, intent, or purpose whatsoever." Various acts were passed from time to time for carrying further sums to the credit of the fund. This first sinking fund broke down obviously because, at an early period of its existence, acts were passed to charge expenditure of different kinds upon the fund. In fact parliament deliberately diverted the fund from its legitimate objects, first by small encroachments, afterwards by charging upon it more than half the interest of the national debt together with the greater part of the other annual expenditure. In the reports of the public accounts commissioners of 1780-83, the fund as such scarcely figures, and the early formation of a plan for the reduction of the debt was urged, with the recommendation that the obvious means to this end was the creation of a fund to be invariably employed under proper direction to the gradual diminution of the public debt.

The thorough rottenness of this piece of financing will be seen at once from the following figures:—

Total legitimate receipts of the sinking fund from 1717-88	£200,613,693
Amount of fund applied to pay interest on debt 1717-88	£98,768,623
Amount applied to ordinary expenditure	93,251,704
	£192,020,327
Amount applied to reduction of debt	£23,984,344
Excess of expenditure over income in the whole period 1717-88	£184,615,814
Amount of loans raised	£189,417,658

in other words the fund was almost entirely absorbed by expenditure other than the repayment of debt; notwithstanding this, there was an excess of expenditure over income in the whole period which approached the whole amount of the sinking fund; and while on the one hand a sinking fund was being diverted from its purpose of repaying debt, on the other a new debt almost equal in amount to the sinking fund was being incurred.

In 1786 the consolidated fund was formed with the view of taking over the charges which had exhausted Walpole's sinking fund, and a new sinking fund was instituted by W. PITT under 26 Geo. III. c. 31. The real author of the scheme was said to be Dr. PRICE; and he showed that he rightly grasped the principle which should guide such legislation—consignment to a permanent commission, penalties for

dereliction of duty, determination to keep up a settled rate of contribution. The proposal was to set aside £250,000 quarterly, or £1,000,000 a year, out of the old surplus duties which formed the previous fund, according to an act of the following year out of the consolidated fund; all moneys were to be paid into the Bank of England, to the credit of certain commissioners who were to apply them to the reduction of the national debt, and in no other manner whatsoever. Certain other sources for income were also assigned to the commissioners. With the total received they were to purchase portions of the public debt, and if possible below par; stock so purchased was to be transferred to the account of the commissioners at the Bank of England, which received future dividends thereon for credit of the commissioners till the dividends so received reached £4,000,000 a year.

It appears to have been intended that thus £5,000,000 a year would be devoted to the purchase of stock, on which the dividends would lapse, the nominal capital being transferred to the credit of the commissioners till it amounted to the same sum as the debt.

In 1792, besides a further incidental provision for discharge of debt sometimes called a sinking fund but not properly one, there was introduced the principle of the true sinking fund as it is now understood, viz. that in raising further loans, besides interest an annual provision of 1 per cent should be made for gradual redemption. This plan, however, was modified in 1798.

The two sinking funds above described were combined in 1802, the main features of each being, however, maintained.

Of Lord Henry Petty's proposal for a new sinking fund on more complex principles it is unnecessary to say anything, as it came to nothing.

In 1813 the sinking fund was modified by Mr. VANSITTART when chancellor of the exchequer; the details of the change are not important; its main points were the final discharge of the old debt of 1786 and a general and continuous application of the fund to all loans thereafter raised. The act (53 Geo. III. c. 35) legalising the change recited that the amount of £238,350,143 : 18 : 1 had been actually purchased by means of the sinking fund.

In 1817 the sinking fund of Ireland was consolidated with that of Great Britain, and in 1819 the whole question of those funds was considered by a committee of the House of Commons which passed a resolution in favour of setting aside £5,000,000 a year surplus income for the purpose of discharging debt. In practice this led to a series of illusive operations with a view to showing a surplus of £5,000,000 yearly—a chief feature in which was borrowing from the sinking fund itself.

In 1823 (4 Geo. IV. c. 19) one more effort was made to reconstitute the sinking fund on the simple basis of a provision of £5,000,000 a year from the consolidated fund. But in the ensuing years this provision was misapplied in aid of the conversion of the debt.

Thus far it would appear that the general principle described was tolerably sound and based upon a laudable intention. The method in which the principle was applied or rather infringed provoked the criticism of every sound financier. The fund may be considered to have received its death-blow from Lord Grenville's essay in 1827 followed by the recommendations of the parliamentary finance committee in 1828.

The facts of the operations up to that date were as follows:—

Receipts of Sinking Fund—	
Issues from the exchequer . .	£73,294,278
Percentage on new loans, etc. .	166,473,919
Other receipts	97,126,693
	£336,894,890
Application of Fund—	
To pay off debt. . . .	£330,050,455
To pay life annuities, etc. . .	6,844,435
	£336,894,890
Nominal amount of debt redeemed	£472,942,703
Fresh loans raised . . .	£1,052,536,700

from which it appears that just about half the actual receipts of the fund were raised by loans; and that while the fund was accumulating further debt was being incurred, so that in any case the reduction of debt was imaginary rather than real.

There was, however, an actual loss to the nation upon the continuance of the fund, for it has been calculated that the loans raised during the great war at the beginning of the century carried interest at an average rate of £5 : 0 : 6 per cent, whereas the previous loans to the extinction of which the sinking fund was devoted carried only £4 : 10s. per cent interest. In fact, debt was incurred at a higher rate of interest to pay off debt at a lower rate, —a piece of unsound finance which the straits of the nation did not justify, which cost us over ½ per cent on at least £330,050,455, or more than a million and a half a year for many years.

It is little wonder that the sinking fund was assailed by the economists of the second quarter of this century. "This worthless compound of delusion and absurdity"—M'Culloch calls it. "We doubt," he says, "if the history of the world can furnish another instance of so extraordinary an infatuation."

The House of Commons committee of 1828 restored the idea of the sinking fund to its

original and proper basis, although at the time the recommendation had an air of novelty; it decided that a sinking fund can only depend on a surplus of revenue; and suggested that the aim of the chancellor of the exchequer should be to obtain an annual surplus of £3,000,000 a year to be devoted to the extinction of debt. A modification of this recommendation was proposed by Goulburn in his budget speech of 11th July 1828, and in 1829 a definite arrangement was carried into effect whereby one-fourth of the surplus of revenue in each year was to be issued to the national debt commissioners who were empowered to buy up exchequer bills or other portions of funded or unfunded debt as seemed to them most advantageous.

For about forty years this arrangement was in force, but the annual amount devoted to the extinction of debt never reached anything like £3,000,000; on the average of years it was not more than £1,300,000.

In 1866 the special acts relating to sinking funds were repealed and the remnants of the old sinking fund of 1786 swept away, but a provision was retained under which certain surplus revenues were applied to the extinction of debt. The results of this provision still survive under the name of the "Old Sinking Fund"; in 1875 (38 & 39 Vict. c. 45), the present "New Sinking Fund" was instituted by the enactment that a certain annual sum should be devoted to the service of the debt, and that such balance of this amount as was not required for interest should be applied as a sinking fund.

But these arrangements, which have on occasion been suspended for a time, are not true sinking funds; and the most recent attempt at such a fund in this country, the provision of a true sinking fund to pay off the local loans annuities (44-45 Vict. c. 55), has been shortlived.

It may be stated broadly that in recent years the idea of devoting any definite proportion of the surplus revenue to the extinction of debt, has been abandoned in favour of the plan of terminable annuities, or special schemes of conversion, and generally the principle of reducing the nation's debt has been postponed to remission of taxation.

Sir Robert Giffen in 1867 (*Essays in Finance*, 1st series, 4th ed. (1886), p. 259) made a stand against the prevailing sentiment, and formulated an able plea for a national effort to reduce the debt, though this at present presses very lightly on the British nation as compared with the time when it was contracted. A good sketch of the change of opinion in this direction is given in a parliamentary return of 1869, 366, I., pp. 724-25.

Principle of a Sinking Fund.—As indicated in the opening words of this article, a sinking fund is in its essence a *good thing*. It is used with great effect in modern public loans of a limited currency. In spite of the discredit which fell upon the old sinking fund the essence of the system has been preserved and applied by financiers during the last fifty years. The United States, for instance, after the war of 1862, set aside 1 per cent of their entire debt every year as a sinking fund (*Foreign Office Reports*, 289, United States, 1888, p. 18).

The successful application of a sinking fund depends on two things: (1) the regular investment of a given annual sum, the produce of taxation or savings, to be applied to the reduction of debt; (2) the accumulation of all the interest upon such sums for the same purpose.

The claim made by Dr. PRICE for the old sinking fund, that it was accumulating at compound interest and paying off debt by its own unaided force, was theoretically accurate; if the fund had been invested outside the country and the interest received had been also so invested each year—each annual sum would have been bearing compound interest. The claim, however, was in the particular instance based on a fallacy, because the annual contributions were invested in the purchase of the debt which they were intended to pay off; therefore the dividends received on the contributions were in effect payments on a dead debt and in themselves unnecessary,—in other words increased contributions from the tax-payer under the guise of dividends. Under such a scheme, especially when the principal was often raised from loan funds, it was absurd to attribute any merit to the sinking fund beyond the bare facts.

In the case of loans to communities such as some of the crown colonies of the British empire, whose resources are not unlimited, and whose credit is easily shaken by over-borrowing, the sinking fund is a guarantee which greatly increases the confidence of the lending public. Such loans are usually repayable within a limited period. To provide for that repayment without undue pressure at any one time the borrowing body—colonial government, or municipality, or whatever it may be—provides usually 1 per cent per annum on the capital of the loan over and above the interest, payable to trustees who invest the sums so received in the securities of other bodies, and accumulate both capital and interest in such a way as to form a fund amounting by annual accretions and at compound interest to the total debt to be repaid. Almost all the smaller British colonial loans at the present day, whether issued in bonds or as inscribed stock, carry a sinking fund of this kind, calculated to pay off the capital at the expiration of the currency of the loan. The success of such funds is undeniable, because they can obtain the two conditions essential to success, viz. official trustees of unimpeachable integrity and an area of absolutely sound in-

yestment much larger than the debt which they are intended to pay off.

The latter of these conditions is not readily available in the case of the debt of a great nation, which cannot find a large field for foreign investment without unduly driving up the price of the stock in which it elects to invest, and in any case must take a risk of loss if it quarrels with the nation whose stock it holds. For such a nation simple paying off and wiping out of its own debt is the safest plan.

[The literature of the old sinking fund is considerable, vide M'Culloch's *Literature of Political Economy*, 1845, pp. 320 *et seq.* See especially *Parl. Return*, 366, I., of 1868-69, pp. 710 *et seq.* Price, *Appeal to the Nation on the Subject of the National Debt*, 1774.—Hamilton, *An Inquiry into the National Debt*, 1813.—Grenville, *An Essay on the Sinking Fund*, 1827.—M'Culloch, *Taxation and Finance*, pp. 446 *et seq.*, London, 1849; *Parliamentary Returns*, c. 8520-1847.—Ricardo, *Works*, pp. *seq.* and *Letters.*] C. A. H.

SISA. The grant to the treasury of Aragon, and later on of Castile, of a certain proportion of each parcel of goods weighed or measured. The levying of the SERVICIO (*q.v.*) was often voted under this form.

[Piernas Hurtado, *Tratado de la Hacienda*, vol. ii. p. 55 (4th ed., Madrid, 1891), and Canga Arguelles, *Diccionario de la Hacienda* (London, 1826).] E. ca.

SISMONDI, JEAN CHARLES LEONARD SIMONDE DE (1773-1842), born and died at Geneva. Celebrated principally as an historian, he deserves to be studied for the independence of his intellect, the integrity of his character, and his lofty humanitarian sentiments—notwithstanding the errors in his economic views, particularly with regard to labour questions.

He began life as an employé in a house of business at Lyons, which was broken up by political events and the commencement of the revolution. After returning to Geneva, his family were obliged, for the sake of safety, to take refuge in England. They soon returned to make a short stay in Geneva, where young Charles narrowly escaped death in defending his fellow-countrymen.

His father then bought land in the country near Florence, and Charles Sismondi gave himself up entirely to agriculture. This was the beginning of his study of political economy, and it was a happy beginning. The economic conditions of this branch of industry were to him the object of deep study,—interesting traces of which are to be found in all his later works.

Among other things, the advantages of MÉTAYAGE have often been ably illustrated by him.

His first work, *Tableau de l'agriculture toscane*, 8vo, 1801, dates from this period. Two years after he published *La richesse ou principes d'économie politique appliqués à la législation du commerce*, 2 vols. 8vo, 1803, his masterpiece, in which he boldly avows himself on the side of Adam SMITH, seeking, however, to correct him in some points. He was not then acquainted with J. B. SAY, whose great work *Traité d'économie politique* appeared in 1803. However, they agreed on several subjects, not the least important of these being FREE TRADE. The weak side of Sismondi after this date was the question of the division of the value of a product between the different factors by which it had been created. His mistake on this question, which was only half formulated in 1803, may be described as the theory of the essential wage—what the Roman Catholic Church at the present day calls the *juste salaire;* this took definite form as time went on. His views are questionable also on the question of the basis of the right of property which he regarded "as a fortunate usurpation, a gift of society, and not a natural right anterior to it." Between 1807-18 he published his celebrated *Histoire des républiques italiennes du moyen-âge* (16 vols. 8vo), a work of the first rank in which economic subjects are often approached with a masterly hand.

A journey which he made, at the commencement of the restoration, to England, where he had not been since 1793, had an unfavourable influence on his economic views. The influence exercised by the increase of machinery on the condition of the work-people on the other side of the Channel touched him deeply. The sufferings he witnessed moved him to such an extent as to influence his public opinions. From that time his reason was the slave of the sentimental impulses of his heart, and *Les nouveaux principes d'économie politique ou de la richesse dans ses rapports avec la population* (2 vols. 8vo, 1st ed. 1819; 2nd ed. 1827) display serious incongruities when compared with his work of 1803. In the latter he declares that economic science is "in many respects the domain of sensibility and the imagination," and attacks with vigour the doctrine of *laissez-faire, laissez-passer.* This work is a mine whence the socialists have extracted those erroneous but moving arguments with which they attack the natural order of economic society. In conclusion, Sismondi proposes two remedies, the one—prohibition by law of the marriage of all who cannot prove they have sufficient means to bring up a family. He proposed this specific in 1819; he gave it up in 1827. The other—the charging the employer with whatever is required to make up what he terms the *necessary wage* of the workmen.

In other words, the supposed needs of the labourer—things which are extremely variable, varying according to country, period, individuals, profession, age, customs, etc.—are to fix his salary.

This discussion on the position of the workman's wage is characteristic of the time when Sismondi wrote his principal works, a period influenced by the distress caused by the great war on the continent and the economic troubles which followed when peace returned to Europe.

The development of the erroneous doctrine of the necessary wage is set forth theoretically in *Richesse commerciale*, 1803. A letter to Channing written in 1831 shows that Sismondi at last had doubts as to the efficacy of the second remedy, and

renounced it while proposing others. A collection in three volumes appeared 1836-38 under the title of *Études sur les sciences sociales*—the first was devoted to *Études sur les constitutions des peuples libres*, and the two others to *Études sur l'économie politique* which reproduced the views in the former work almost literally, or at least views inspired by the same doctrine.

Sismondi devoted twenty-three years of his life (from 1818 to 1842) to his *Histoire des Français* consisting of thirty-one volumes of which one volume contains the tables. He was prevented by death from doing more than twenty-nine volumes, and the thirtieth as well as the general index is written by M. Amédée Renée. It is an excellent work, but it would have gained, especially as regards style, by another revision.

Sismondi, in conjunction with Fix, assisted in the establishment of the *Revue nouvelle d'économie politique*, which, in spite of its excellent editors, existed only for a short time (1833-1835).

Sismondi took part throughout his life in the political movements of his country—he was a member of the *Assemblée constituante helvétique*, and was appointed an active member a few days before his death, when he delivered a speech, though with great difficulty.

Besides those just mentioned, Sismondi produced many works, the most important of which are *De la littérature du midi de l'Europe* (4 vols. 8vo, 1813), republished in 1819 and 1829; *Julia Sévéra ou l'an 420* (a description of the manners and customs of the Gauls of the time of Clovis) (3 vols. 12mo, 1822).—*Histoire de la renaissance de la liberté en Italie, de ses progrès, de sa décadence et de sa chute* (2 vols. 8vo, 1832).—*Histoire de la chute de l'empire romain et du déclin de la civilisation de l'an 250 à l'an 1000* (2 vols. 8vo, 1835).

M. Mignet, in May 1835, and M. Alph. Courtois in October 1892, read notices of Sismondi and his works before the *Institut de France, Académie des sciences morales et politiques*, the former regarding him as an historian and a man of letters, the latter as an economist. A. C. f.

SIXPENCE. English silver coin, first struck in the reign of Edward VI.

The following is a list of the coins of this denomination issued since that time:—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Edward VI. . .	1552	48	925	6½d.
Elizabeth . .	1560	48	925	6½d.
Elizabeth to George III.	1601 to 1816	46¼	925	6¼d.
George III. and subsequently	1816 onwards	43·6363	925	6d.

F. E. A.

SLAVERY.

Slavery, p. 409; Slave Trade, p. 409; Slave Labour, p. 410.

From the earliest times in all nations the system by which the stronger enslaved the weaker has for a time prevailed. In early times it was customary to reduce to the status of slave all captives taken in war, however noble their birth might be. Alike in the East, in ancient Greece, and in ancient Rome, the system flourished. Of the conditions of slave life in Greece and Rome full accounts have come down to us, but to enter into the details of the status and its ameliorations is hardly within the scope of this article (for further information see ABOLITIONIST; EMANCIPATION; SERF; VILLEINAGE). The general recognition of slavery as a lawful status was made more and more impossible by the spread of the Christian religion.

Slave Trade.

Nevertheless, in the course of the 16th century, a new and systematic traffic in slaves was inaugurated by Christian nations, and a *régime* of cultivation based on slavery was continued almost to our own day. The use of negro slaves by the Moors in North Africa, which had existed from time immemorial, probably suggested the idea of negro slaves to the Portuguese and Spaniards. The importation of the African negro into America and the West Indies became a recognised and profitable traffic which quickly fell into the hands of the Dutch, and later, under the ASSIENTO TREATY of 1713, was almost monopolised by the English. The facility of obtaining such labour built up the sugar industry of the West Indies, but placed it on a wasteful and extravagant basis; the same facility opened the mines of Mexico and Peru. To some extent the Spaniards and Dutch also enslaved the American aborigines; but these were inferior labourers, and the Dutch in their greatest American settlements—those in Guiana—found it the best policy to treat the natives as friends and allies. The king of Denmark, in 1792, took the lead in abolishing the traffic in negro slaves, England followed in 1807, and in the same year the United States completed their legislation against the trade. France was not long behind. The Spanish government, which had always secretly encouraged the traffic, though interdicted from its actual exercise by the power of the Dutch, were last to give way. It followed naturally from the abolition of the slave trade that slavery itself should be abolished. It is hardly necessary to do more than refer to the emancipation of all slaves in the British colonies in 1833, and to the abolition of slavery in the United States in 1862 which led to civil war the same year. Through the action of Cuba (1886) and Brazil (1887) slavery in nations of European origin has entirely disappeared. Yet even at the present day, amongst highly civilised nations, forms of slave traffic are liable to revive from time to time, and are only checked by a lively public morality.

Slave Labour.

It is generally admitted by economists that slave labour is dear labour, extravagant in method as well as brutalising in effect both on the master and slave. This may be fairly adopted as the broad principle based on experience and history; but it is not always of the essence of slave labour; many instances have occurred, both in the West Indies and the southern states of America, where a sort of feudal attachment had sprung up between slaves and the employer. It is possible that this could only take place where a creature of low organisation could not look beyond mere bodily comfort. There are certainly many who know the West Indian negro well who would argue that a negro slave, really well cared for, will do better and more cheerful work than many a free man. This side of the picture has been too often overlooked by writers on slavery; they have naturally revolted from the whole conception of slavery, and detested the thoughtlessness and barbarities which were too often the most conspicuous accompaniments of slave life in the West Indies and the southern states.

So far as the condition of slaves was regulated with harshness, their labour was marked by the following defects:—

(1) A low degree of productiveness, because there was no personal inducement to do good work.

(2) Great wastefulness and expense (*a*) because of the necessity of a disproportionate amount of supervision; (*b*) because of waste of life and the importation of fresh slaves at a high cost.

It is so generally admitted that "slave labour is of all kinds the most inefficient, and that punishment and authority are inferior to reward and free contract as stimulants to exertion" (Nicholson, *Principles*, p. 359), that it is hardly necessary to discuss the question fully. It is desirable, however, to point to the particularly fair and impartial summing up by MILL as to the extent to which slave labour in the West Indies may have enabled the organisation of the sugar industry, and been a source of wealth to the employers.

[The literature of slavery is endless, especially the English works during the first half of this century. For an account of it in Greece and Rome see Smith, *Dictionary of Antiquities; s.v.* "Servus," and Wallon, *Histoire de l'Esclavage dans l'antiquité*, Paris, 1879, 3 vols. 8vo. For Rome see also Ramsay, *Manual of Roman Antiquities*, pp. 94-100. For a summary of negro slavery, see Payne, *European Colonies*, p. 73-5.—Caldecott, *English Colonisation and Empire.*—Lucas, *Historical Geography—West Indies*, pp. 65 *et seq.* For economic effects consult Adam Smith, *Wealth of Nations*, bk. iii. ch. ii.—Mill's *Principles of Political Economy*, bk. ii. ch. v.—Nicholson, *Principles*, pp. 358-359. — Cairnes, *Slave Power*, 2nd ed. 1863.] C. A. H.

SLIDING SCALE (WAGES).

Sliding Scale, p. 410; the Standard Wage in the Sliding Scale, p. 411.

SLIDING SCALE (WAGES). In trades where it is recognised that the wages of labour may appropriately vary with the price of the particular product into which the labour enters, as in coal-mining, and where there are organisations of capital and labour strong enough to obtain trustworthy statistics and enforce decisions, the sliding scale seems to commend itself as an admirable way of regulating wages. The initial difficulty lies in determining the "standards"; that is, the price which may be considered normal and the wage which may be considered normal when this price rules (see STANDARD RATE (OF WAGES)). The second difficulty lies in fixing the percentage of rise or fall of wage which shall accompany rise or fall of price, in such a way that there shall be an approximately satisfactory division of the added price between labour and the other factors. Usually a certain period of time, from one to six months, is taken as normal, and the average prices and wages ruling during this period are taken as the "standards." The relative percentages of rise or fall are likewise empirically determined. A revision-period of two or three months being decided on, at the end of each revision-period chosen accountants, who have access to the books of the employers, decide whether price has risen or fallen, and, on this finding, intimate an advance or reduction of wages.

For example, when the South Wales sliding scale was established in 1875, the standards were taken by reference to the prices and wages ruling during the year 1869: the revision-period was fixed at six months; and the percentages were $7\frac{1}{2}$ rise in wage for every shilling per ton advance in the price of coal. Since then various changes have been made from time to time; at present the standard price is between 7s. $10\frac{1}{4}$d. and 8s. Wages alter $8\frac{3}{4}$ per cent for every shilling in the rise or fall of coal; the revision-period is two months.

The advantages of a sliding scale as, to a certain extent, reconciling the interests of labour and capital, need not be dwelt on. It is, of course, only in a few cases that labour enters so largely and directly into the making of a particular commodity that wages can be regulated by its price. But in coal and iron-stone mining, and in the manufactured iron and steel trades, the application of the sliding scale is easy, and the fact that, for over twenty years, the richest and largest coal-fields in Great Britain, those of South Wales, have held by the system without a break is sufficient proof of its practicability.

The practical difficulties encountered may for the most part be traced to an economic weakness in principle. Granted that labour and capital, as instruments of production, get their value from that realised by their products,

and that the total remuneration of labour may be expected to follow the value of the total product of industry (national dividend), it is questionable if this principle is realised by a system which establishes a direct connection between price of any one kind of labour, and price of any one product. It is evident that the price of coal may be advanced or reduced without much reference to general prosperity, and a particular class of wages may, under a sliding scale, be raised or depressed at the same time that wages generally are taking an opposite direction, in which case the miner obtains a disproportionate share of the national produce. In the long run this would probably work out fairly enough, but it is a common experience that workmen are slow to recognise that, if they get an advance of wages when, irrespective of general prices, the prices of their particular product rise, they must submit to a reduction when the prices of their particular product fall. Where it is customary for employers to take contracts for delivery over long periods at a fixed price, as in shipping orders, in supply for gas works, etc., another form of the same difficulty emerges. In such cases the rise of wages which might be expected from the current newspaper quotations for coal does not come at the end of the revision-period, and may never come at all if prices should fall again before the contracts expire. The men are apt to think that they would have been better off without a sliding-scale system. It is difficult, too, to persuade them that their employers, in making the contracts, have not trusted to the sliding scale to keep wages down, particularly if miners in other parts of the country, not under the sliding scale, are enjoying an advance.

The experience of South Wales, however, has proved that when men and masters meet round a table to discuss points of conflict, the difficulties mentioned are found not insuperable.

THE STANDARD WAGE IN THE SLIDING SCALE. The determination of the "standard wage" on a sliding scale is usually empirical, being either the current wage at the time when the scale is established, or the average wage over a period of time taken as normal. Theoretically, the standard wage should be the wage which will keep the remuneration of the particular labour in equilibrium with that of all other kinds of labour of similar skill and conditions in the country; rises or falls therefrom being regarded either as accidental or as tending to balance each other. According as the empirical determination coincides with the theoretical standard, may the sliding scale be expected to work satisfactorily or not (see SLIDING SCALE).

[J. E. C. Munro, *Sliding Scales in the Coal Industry.*—*Sliding Scales in the Iron Industry.*—L. L. Price, *Industrial Peace.*—Smart, *Studies in Economics*, No. III.] W. S.

SLIP. When an insurance broker is requested to effect a marine insurance he prepares a brief memorandum (called the slip) of the particulars of the proposed risk, which is presented to the underwriters, who each initial it for the sum he underwrites. The slip forms the agreement between the parties, but by the 30 Vict. c. 23, § 7 and 9, a marine insurance must be embodied in a policy. The slip, therefore, is not enforceable, though it may be given in evidence, if material (see INSURANCE, MARINE).

[Arnould on *Marine Insurance*, London, 1887.] J. E. C. M.

SMALL HOLDINGS ACT 1892 (55 & 56 Vict. c. 31). Ever since J. S. Mill's *Principles of Political Economy* dwelt so earnestly on the usefulness of PEASANT PROPRIETORS, there has been a growing opinion in favour of an increase in the number of small landowners in England. But such a result is more easily desired than attained. Agricultural estates in England are usually of considerable extent, and their owners are commonly anxious to keep them undiminished. When the owner is disposed to sell, he generally finds it more convenient to sell in considerable quantities. Even when the owner is disposed to sell the land farm by farm, a single farm is usually more than the most thrifty labourer can purchase. He finds it cheaper and altogether more advantageous to hire than to buy. Partly through these obstacles, and partly through the opportunities of a different kind offered by the towns, the ambitious and energetic labourer seldom even thinks of becoming a landed proprietor. Occasionally he becomes a tenant farmer, but though this may be a more comfortable condition, it is not what agrarian reformers have desired for the country. In recent years the decline of agriculture has made many landowners anxious to sell at a low price to any one who would buy land, and the legislature has passed the Small Holdings Act to assist the labouring class to take advantage of *this* opportunity. Any county council may, and every county council not of a borough must, appoint a committee to consider whether there is cause for putting the act into operation. Any county elector may petition the council to do so, and if his application is in good faith, it must be acceded to. The county council may buy or lease land for small holdings, but has no power of compulsory purchase. It may also execute such works of road-making, draining, and fencing, as can best be carried out before the land has been divided. It may then sell the land in small holdings, that is to say, holdings of more than one acre but not of more than fifty acres, or exceeding an annual value of £50. One-fifth of the purchase-money is to be paid on completion of the contract, and the balance by half-yearly instalments of principal and

interest spread over fifty years. Moreover, a fourth of the purchase-money may be secured by a perpetual rent-charge. Where the land has only been leased to the county council, or where the person desiring to occupy it cannot afford the purchase-money, it may be let in small holdings of not more than fifteen acres, or £15 annual value. Small holdings are only to be provided for those who mean to cultivate them personally, and must not be used for any but agricultural purposes, or be divided, assigned, or let without the sanction of the county council. The county council may also advance to tenants of small holdings on private estates the money necessary to purchase such holdings. Where small holdings have been provided, the county council may delegate its powers to a committee containing representatives of the parish council in whose jurisdiction the small holdings are situated. The intention of the act is that the county council should not incur any permanent loss in carrying out its provisions. The temporary burthen imposed on the county must not be more than can be met by a rate of 1d. in the pound.

No appreciable effect has been produced at present by this act. A parliamentary return, printed August 1895, showed that up to that time petitions under the act had been presented in rather less than half the counties of England and Scotland, that small holdings had been provided only in some eight or nine counties, and that their total extent was but a few hundred acres. It is impossible to predict whether the act will be more operative in the future.

[See text of act. Arts. ALLOTMENT; HOLDINGS OF LAND; LAND; MORCELLEMENT.—Wright and Hobhouse, *Local Government and Local Taxation*, 2nd ed. 1894.—Parker, *Duties of County Councils*.]

F. C. M.

SMALL NOTES. See BANK NOTES.

SMITH, ADAM (1723-90), was born at Kirkcaldy, Fifeshire, N.B., a few months after the death of his father, who was comptroller of the customs of Kirkcaldy. He attended the grammar school there, was barely three years student at Glasgow University (1737-40), and went with a Snell Exhibition in 1740 to Balliol College, Oxford. There he remained till 1746, returned to Kirkcaldy, delivered lectures on literature as well as on economics at Edinburgh 1748-49, and edited the poems of Hamilton of Bangour, published 1749. In 1751 he became professor of logic at Glasgow, and was transferred to the chair of moral philosophy in 1752. He contributed to the short-lived *Edinburgh Review* 1755, and gained fame outside of Scotland by his *Moral Sentiments* 1759. Charles Townshend persuaded him to resign his chair in 1763 and become travelling tutor to the young Duke of Buccleuch. Under these auspices he visited Paris, Toulouse, Bordeaux, Montpellier, and Geneva, but stayed longest (a year and a half) at Toulouse, and nearly a year at Paris. The *Wealth of Nations* was begun at Toulouse; and the author owed to this French visit the knowledge of French industries, finance, and administration so abundantly manifested throughout that work. His pupil's rank, his own rising fame, and, not least, his friendship with David HUME, secured him access to the philosophical, political, and literary celebrities whom he would most have desired to know, including VOLTAIRE, TURGOT, and QUESNAY. Returning to England October 1766, he was back at Kirkcaldy in May 1767, and was little out of it, except to visit Edinburgh and London, till the end of 1773, when he seems to have lived in London till his book was out at the beginning of 1776, the year of Hume's death. Two years afterwards Adam Smith was made commissioner of customs at Edinburgh 1778, and remained there till his death in 1790.

What Adam Smith proposed to achieve was not merely a treatise on moral philosophy and a treatise on economics, but a complete moral and political philosophy, in which the two elements of history and theory were to be closely conjoined. This was his programme as early as 1759, for it stands recorded in the concluding sentences of the *Moral Sentiments*. It was carried out for ethics in the *Moral Sentiments;* but Adam Smith found the rest of the programme too large for one book. "I shall in another discourse endeavour to give an account of the general principles of law and government and of the different revolutions they have undergone in the different ages and periods of society, not only in what concerns justice, but in what concerns police, revenue, and arms, and whatever else is the object of law" (*Moral Sentiments*, 1st ed., p. 551). In the *Wealth of Nations*, however, he dealt only with "police, revenue, and arms," in fact, with regulations founded on expediency, while those founded on justice remain almost entirely untouched as well as the general theory of jurisprudence itself. Some light is thrown on his probable lines of treatment by the Glasgow student's *Notes of Lectures*, edited by Mr. Cannan.

Adam Smith's theory of moral sentiments is, in brief, that they are founded, not, as Hume said, on self-interest, but on fellow-feeling—the power one man has of putting himself in the place of another, and judging others by himself, himself by others. On this foundation are built two distinct kinds of moral judgments, judgments of propriety and judgments of merit. To have propriety, an action done by another must show an effect proportioned to the cause, it must not imply a passion greater than I should feel in the circumstances; outbursts of passion must be so toned down that the spectator can enter into them. On the other hand, to have merit, an action must show a tendency to

produce a beneficent effect. In both cases, the judgment depends on a regard for others which is a reflected regard for ourselves. Thus the treatise is, as described in the later title-pages, "an analysis of the principles by which men naturally judge concerning the conduct and character first of their neighbours, and afterwards of themselves." One of the moral virtues, however, stands by itself, namely justice. It begins with fellow-feeling, but its main support is utility. Without justice, society could not remain in existence. We have seen that the *Wealth of Nations* itself may be said to have grown out of a projected treatise on justice. It is true that there is no reference in the *Wealth of Nations* to the earlier book, but there is no conflict between them, and we must believe the express statements of the author that they form part of one whole. A belief in the "invisible hand" is common to both, and there is the same belief that, on the whole, "nature" works for human happiness and progress. There is no confusion of happiness with wealth; we are told in the earlier book that happiness is fairly well distributed over all ranks of life rich and poor.

The *Wealth of Nations* (1776) is the book that has probably secured its author as near an approach to immortality as can fall to any economic writer. The following are the main outlines.

"Political Economy" is to Adam Smith "an inquiry into the nature and causes of the wealth of nations." (Title, compared with IV. ix. 307, 1, ed. M'Culloch, 1863) "The annual produce of the land and labour" of a country makes "the real wealth and revenue of all its inhabitants" (II. iii. 149, 1). "The annual labour of every nation is the fund which supplies it with all the necessaries and conveniences of life which it annually consumes" (I. Introd.). The labour is the "cause" and the commodities, the necessaries and conveniences are the "nature" of the wealth of nations.

The subject is treated in five books. The first is devoted to labour, the second to stock, including capital, the third to the history of the growth of wealth in different nations, the fourth to systems of political economy, and the fifth to the state and its revenue.

Why are savage societies less wealthy than civilised? Mainly because of the division of labour that prevails in the civilised, to the immense increase of the productive powers of the labourers. It improves dexterity, saves time, and leads to inventions. It is due to a "natural propensity" of men to barter and exchange with one another, but it is not itself devised by men, it has grown up of itself. It is not due to difference of talents; on the contrary it creates these. It is limited by the extent of the market, being the more applicable the more the market is widened (I. iii.). It leads, through the growing difficulties of barter, to the invention of money (I. iv.). It is at once the cause and the condition of the formation of stock (I. i. cp. II. i. Introd.).

The mention of money leads to an inquiry into value, and a distinction of value in use from value in exchange. Money is for short periods a good common measure of value in exchange, and corn is a better for long periods; but labour, which was the first price for all things, is the best measure of their value. By "labour" here Adam Smith means the labour purchased by an article, not the labour involved in the making of the article; but he finds it hard to hold by this distinction, and to keep the senses of the words clear. (See I. iv. v.)

What are the "component parts of the prices of commodities" as they are? They are mainly three—wages, profits, and rent (I. vi.). These are "the three original sources of all revenue as well as of all exchangeable value. All other revenue is ultimately derived from some one or other of these" (I. v. 24, 1).

Now there is in every given society or neighbourhood an ordinary, average, or customary rate of wages, profits, and rent, determined by the circumstances. This rate may be called the "natural" rate, and when goods are sold at such a price as to yield just this rate, then they are sold at their "natural" price. The market price is determined by the demand and supply of the moment, and may be above or below the natural price, but it "gravitates" towards the natural price (27, 2); if the producers are to carry on their business, the price "over any considerable time" must be equal to the natural price, the price it has really cost to bring the goods to market (I. vii. 25, 26).

In detail, the "natural rate" of wages was at first the whole produce (I. viii. 29, 1), but, after the appropriation of land and the accumulation of stock, it is part of a contract between employer and employed. The lowest wages would yield only physical necessaries, but the actual customary rate is beyond that point in most countries, especially in England, where the customary rate has happily been rising. How high it is depends on the state of industry in a country, whether progressive, stationary, or declining (I. viii.).

The condition of the labouring poor, that is of the great body of the people, is happiest in the progressive state when society is advancing to the further acquisition of wealth (37, 1, cp. 85, 2). We seem to be in that state at present. On the contrary the rate of profit, reflected in the legal rate of interest, has been falling; "the increase of stock which raises wages tends to lower profit" through the competition of merchants (I. ix. 40). The two can be high together only in the exceptional circumstances of a new colony (42, 1).

If there is a "natural rate" for wages and profits, why is it that different trades are very differently rewarded? The answer is that in the long-established trades, under ordinary conditions, in the same neighbourhood, and apart from interference of government, "the whole of the advantages and disadvantages of the different employments of labour and stock must be either perfectly equal or continually tending towards equality" (I. x. 45, 2, cp. 52, 2); but this means that the disagreeable, difficult, responsible, precarious, and inconstant employments must have a money reward in proportion to their drawbacks. In the case of profits, the disadvantages that secure compensation are mainly disagreeableness and risk. Profits tend much more surely to a level than wages (50, 2).

Even where liberty exists, there would be causes at work to disturb the balance. But there is not perfect liberty. Corporations, apprenticeships, laws of settlement, restrict competition and hinder the circulation of labour in one department, while endowments increase competition in another. The result is a disturbance of the natural progress of the country, to say nothing of the wrong often done to the labourer by the infringement of his most sacred rights of property, "the property which every man has in his own labour" (I. x. pt. ii., Inequalities occasioned by the policy of Europe).

"Rent, considered as the price paid for the use of land," stands on a different footing from wages and profits. The landlord's interest is to leave the tenant "no greater share of the produce than what is sufficient to keep up the stock from which he furnishes the seed, pays the labour, and purchases and maintains the cattle and other instruments of husbandry, together with the ordinary profits of farming stock in the neighbourhood"; what remains is the "natural rent of land." It is a monopoly price, and is "not at all proportioned to what the landlord may have laid out upon the improvement of the land, or to what he can afford to take, but to what the farmer can afford to give" (xi. 66, 67). If the price of the produce is less than enough to repay the farmer his outgoings with ordinary profits, there will be no surplus for rent. Hence rent enters into price in a different way from wages and profits. "High or low wages and profits are the causes of high or low price; high or low rent is the effect of it" (67, 1). Land on which food is raised always affords a rent, for men multiply in proportion to the means of their subsistence, and so food is always in demand. Such land almost always produces a surplus for rent, though the amount of the surplus will vary (1) with the fertility, (2) with the situation (67, 2). The surplus too is greater for corn lands, and the value of these and their produce is greater also, till the time when with the extension of cultivation the supply of meat from the native pastures becomes insufficient,

and it becomes worth the landlord's while to turn corn lands into pasture (68, 2). In Europe for the most part corn lands regulate the rent of all other cultivated land (73, 1). If the common food were potatoes or rice, cheaper food than corn, the landlord's surplus would be larger, and the potato or rice fields would regulate the rent of the rest (73, 74).

The lands, which furnish not food but clothing or building materials, sometimes do and sometimes do not afford rent. "Countries are populous not in proportion to the number of people whom their produce can clothe and lodge, but in proportion to that of those whom it can feed." Among savages, perhaps one-hundredth part of the year's labour will be spent on clothing and lodging; the other ninety-nine will be no more than enough to provide food" (75, 2), and in the less civilised countries there will be no rent on any lands except those yielding food. But in civilised countries one half the population can provide food for the other half, the latter then producing luxuries, the desire for which, unlike the desire for food, is quite unlimited (75, 2).

In order to obtain food, the poor will vie with each other to provide luxuries of all kinds for the rich, and the land producing the materials for these luxuries will yield a rent, for example coal mines and timber forests (76-78). It is in this connection that Adam Smith investigates the causes that have made gold and silver the chosen metals for the money of almost all nations (78-80).

This first book of the *Wealth of Nations* concludes with a long "digression" concerning the value of silver, introduced by the question whether or not the effects of "the progress of improvement" are uniform. It might have been expected that the value of the materials for luxury should uniformly increase in comparison with that of the materials for food. The case is not so simple. We have three sets of circumstances: (1) Where the demand for silver increases faster than the supply the value of silver rises and the price of corn falls. (2) Where the supply of silver increases faster than the demand, the price of corn will rise higher and higher. (3) Where the supply of silver simply keeps pace with the demand, the price of corn will remain nearly the same (80, 81). The first was the case in Europe from 1350 to 1570; the second from 1570 to 1640, when silver fell after the American discoveries; the third from 1640 to 1776, when silver was steady, with a slight tendency to rise, though "the best opinion which I can form upon this subject scarce perhaps deserves the name of belief" (99, 2, but cp. 224, 2). There had been an increased production from the mines, but trade and the need for silver had increased perhaps still more. A high value of silver is no proof of general poverty or riches any more than a low one (110, 2). Low prices of particular articles, such as cattle and poultry, in comparison with corn, are a decisive proof of poverty (III. i), and judged by this standard, for the converse is true, England is rich. In the present century (18th) corn has been low and other sorts of provisions have been high (111, 112). Hence the value of land has been high; and "the land constitutes by far the greatest, the most important and the most durable part of the wealth of every extensive country" (112, 1). The real interest of the landlords (not that they are always aware of it) is always at one with the general interest of the society; every improvement tends to raise their rents (115). The interest of the labourers is so too, but not so necessarily the employers', for they seek monopoly wherever they can get it (116).

In the second book Adam Smith treats of "the nature, accumulation, and employments of stock"—"stock" meaning, be it observed, accumulated wealth whether used as capital or not. Under division of labour, production takes time, and even for exchange we must wait. "A stock of goods" must be "stored up," sufficient to support the weaver, for example, till he has completed and sold his web. "The quantity of industry therefore not only increases in every country with the increase of the stock which employs it, but in consequence of that increase the same quantity of industry produces a much greater quantity of work" (119, 2).

A man's stock may be either (*a*) spent on his own consumption, or (*b*) intended to afford him a revenue. In the second case it is his capital, and it may be either circulating—going from him in one shape, returning to him in another; or fixed—not leaving his possession, but yielding him a profit *in situ*, as a machine or instrument. In different trades the proportion of these two is very different (120). Adam Smith includes, under the fixed capital of a country or society, permanent improvement of land, through draining for example (cp. II. i. 121, 2), and "the acquired and useful abilities of all the inhabitants and members of the society," such abilities having cost wealth to acquire (122). The circulating capital includes the money, provisions, materials, and finished but unsold work (122). Fixed capital is derived from circulating, and needs to be continually supported by it; fixed capital cannot yield a revenue but by circulating capital. Both of them have as their sole end the increase and maintenance of the stock reserved for immediate consumption. In all civilised countries "every man of common understanding will undoubtedly employ whatever stock he can command in procuring either present enjoyment or future profit" (123, 1).

The author passes in his second chapter to "Money considered as a particular branch of the General Stock of the Society," but first repeats his analysis of price into its three elements, and adds to it the distinction of gross revenue and neat revenue. Real wealth is in proportion to neat revenue, whether for an individual or a country. For a country, all the expense of maintaining the fixed capital must be deducted, but not that of maintaining the circulating. The circulating capital of a shopkeeper, for example, consists in what is part of the neat revenue of other people (124, 125), and they replace it to him from their revenue. "Money, therefore, is the only part of the circulating capital of a society of which the maintenance can occasion any diminution of their neat revenue" (125, 1). Money in fact is, to the society, not circulating but fixed capital; it is an instrument of commerce which has to be maintained. It is machinery, "a great wheel of circulation," and makes no part either of "the gross or the neat revenue" (125, 126, 2). The goods and not the money are the revenue. Paper money is like an improved machine; it diminishes the cost of circulation, that is all (126, 2). Banking enables this invention to have its perfect work (129-145). Adam Smith is not against all interference with freedom of issue. "Such regulations may, no doubt, be considered as in some respects a violation of natural liberty; but those exertions of the natural liberty of a few individuals, which might endanger the security of the whole society, are and ought to be restrained by the laws of all governments, of the most free as well as of the most despotical. The obligation of building party walls, in order to prevent the communication of fire, is a violation of natural liberty exactly of the same kind with the regulations of the banking trade which are here proposed" (143, 1), namely (*a*) the restriction of notes to sums that would confine the use of the notes to dealers and exclude ordinary folk, and (*b*) the obligation to pay notes in gold or silver. There would be then no fear that notes would raise prices, for whatever was added to the currency in notes would be taken from it in the gold or silver (143, 1). The multiplication of banks can then do nothing but good, and the competition of bankers should be as free as possible (145, 2).

Adam Smith proceeds (in II. iii.) to introduce a distinction between productive and unproductive labour, in doubtful consistency with his general view of division of labour in Book I., and with his view of acquired abilities at the beginning of this second book. Productive labour, he says, adds to the value of the subject on which it is bestowed, while unproductive does not. The one is maintained by capital, the other by revenue. The one "fixes and realises itself in some particular subject or vendible commodity," which is, as it were, "a certain quantity of labour stored up" (146, 1); the other consists in services which perish in the rendering. Hence, all manufacture is productive, all menial service and all professional and official service must be reckoned unproductive. The more of the former there are in a country, the richer the country becomes; the more of the latter, the poorer.

Where revenue predominates over capital, as in a residential town, idleness tends to prevail over industry, and the working classes themselves become degenerate (148, 149). Every prodigal is a public enemy, every frugal person a public benefactor (150, 151). The desire to better our condition is, on the whole, stronger than the passion for present enjoyment; and, as the former is the great motive to accumulation, there is hope of continued progress in the right direction (151). Even the mischievous interference of government is not strong enough to prevent progress (152, 153), and the prodigality

of governments, though worse than any private prodigality, is counteracted by the industry of their subjects (154). Even among borrowers (II., iv.) the number of the frugal and industrious surpasses that of the prodigal and idle, and the usury laws have wisely (158) put difficulties in the way both of prodigals and projectors. As to the reward of those who save and lend, we must not suppose it to depend on the value of money. What is wanted is not money but money's worth; the same pieces of money can serve for two or three different loans. The rate of interest will decrease if the stock offered increases, partly because of the general principle that market price will be lowered by quantity, partly because new "profitable methods of employing capital in a country" become harder and harder to find. Competition of employers by raising wages reduces profits, and therewith interest (156-58). The end of all capital is the maintenance of productive labour; yet some employments of capital employ much more than others, and some add much more than others to the annual produce of the country. There are four chief employments: (1) the getting of raw materials; (2) the manufacture of them; (3) the transport of both; (4) the retail distribution of them (159, 160). The profits of the two last are all drawn from the goods of the two first, and the two first are therefore to be reckoned more productive. Of the two first, the getting of raw materials, whether agricultural or mineral, is more productive than manufacture (III. v. 161). In manufacture "nature does nothing, man does all"; in agriculture the "fertility of nature" needs simply direction (161, 2). Our American colonies have prospered so remarkably because almost their whole capitals have been employed in agriculture (163). Of the two last, transport and retail trade, transport together with wholesale trade has three branches. The first of these, home trade, is the most productive, the foreign less so, the carrying trade least of all (164-66). Still all are advantageous if allowed to come as and when "the course of things" introduces them. The carrying trade is at least a symptom of wealth, as in the case of Holland and England.

Book III. shows that the natural course of things has not been followed (166, 167). The improvement of the country would in order of nature precede and occasion that of the towns, but human institutions have frequently reversed the order (168). The development of manufactures would naturally precede and occasion foreign trade, but human institutions have often reversed the order (169, 170). The land was often considered "not as the means of subsistence merely, but the means of power and protection"; and so primogeniture and entails were contrived to keep up large estates and prevent the multiplication of those large proprietors who are naturally the best improvers of land (171). Slaves are perhaps the worst cultivators, and the disappearance of slavery is largely due to the recognition of the fact (172). In Europe the cities obtained political liberty sooner than the country districts; hence came a great impulse to commercial prosperity, with benefit not only to the cities themselves, but to the country districts (176-81). The vanity and improvidence of the great proprietors led gradually to the breaking up of their estates, and the establishment, in the country, of industrial conditions similar to those of the town. The folly of the proprietors and the industry of the merchants, neither of them disinterested, thus brought about "a revolution of the greatest importance to the public happiness" (185, 1). But the natural progress would have secured the same result more surely if more slowly (186, 187).

If the *Wealth of Nations* is to be viewed, as it once was, mainly as an attack on protection, the foregoing three books are a mere preface to the fourth, in which the attack is delivered in full force. The view is too narrow, but undoubtedly the fourth book, for better or worse, stands out from the rest. It has greater pungency of style. In spite of its length, it has more rapid movement. There is much fierce indignation, and there is little of the composure exhibited, for example, in the opening chapters of the first book, where the author at his leisure "artificum manus inter se operumque laborem miratur." In the fourth he is nothing if not critical. He is to deal with systems of political economy, in the current sense of the term, a branch of statesmanship proposing to provide a revenue both for the people and for the sovereign (187). There were in his time two prevailing systems, the Commercial and the Agricultural, the latter existing on paper chiefly, the former reduced to practice, and hardly expressed in theory with any fulness. It is the commercial system that invites his attack. It leans, he says, on the popular notion that wealth consists in money, and the notion is due, to the double function of money, as the tool of exchange and as the measure of value. This notion has led European states to hinder the exportation and encourage the importation of gold and silver; it has led them to prefer the foreign trade to the more productive home trade (187-90). Even writers like MUN, who oppose restrictions, do so on the ground that the result of the unrestricted trade may be the eventual importation of more gold and silver. If bullion goes out to buy foreign goods, and if we sell these goods again, we have the bullion again and more of it (188). It was believed that a proper attention to the "balance of trade" will secure a constant flow of money into the country (188, 189). It was not seen that "freedom of trade" will always secure us as great a supply of money as we want, and the "high price of exchange" following from an "unfavourable" balance, will of itself lead to the correction of the balance (189). The demand for gold and silver in a country is limited by the use there is for these metals, and the main use is to circulate commodities. Money runs after goods, goods not necessarily after money; and money not wanted for circulation of goods is as superfluous as a stock of pots and pans beyond the needs of households. It is as much a 'utensil' as the pots and pans (192). Even to maintain fleets and armies, it is not money but consumable goods that are wanted, and the goods are to be purchased with the surplus of the annual produce of domestic industry (192, 193). Remittances themselves can be made more conveniently in goods, as is shown by the great exportation, without corresponding imports, during a war (193-94). Bullion acts as an international money—"the money of the great mercantile republic" of nations—and its circulation and amount are determined by just the same causes as at home (194). The benefit of foreign trade is not any resulting importation of gold and silver, but the importation of goods of all kinds. The discovery of America benefited Europe by opening new markets for goods, at the cost, it must be said, of "savage injustice" to the natives. The benefit would have been much greater had there been no restraints (196, 197).

In discussing the "restraints upon the importation from foreign countries of such goods as could be produced at home" (198-208, ch. ii.), Adam Smith takes occasion to lay down a few general principles. The sum total of industry in any society must be in proportion to the sum total of the capital in that society. Therefore any regulation of commerce which encourages one particular trade may certainly cause more labour and stock to go into it than before, but only at the expense of diverting them from others (198). The distribution of labour and stock is better where there is no such diversion. Leave each individual trader to himself, and "the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment [of his capital] which is most advantageous to the society" (198, 2). "He is, as in many other cases, led by an invisible hand to promote an end which was no part of his intention;" and it is the better served when he does not intend it: "I have never known much good done by those who affect to trade for the public good" (199, 2). Statesmen should leave private interest to work its way alone, and they may rest content that "what is prudence in the conduct of every private family can scarce be folly in that of a great kingdom." Nobody will make at home what it will cost him more to make than to buy; and the country will only buy goods from abroad if the goods can be supplied more cheaply there than at home. Allow the individuals of the nation to buy thus freely, and you increase their revenue, and therewith the capital and the revenue of the whole country (200). The change from interference to liberty might cause injury to some existing manufactures; it could hardly injure agriculture (201, 202). There are two cases where a special burden may rightly be put on the foreigner: (1) the case of the NAVIGATION LAWS, where for the sake of "defence" we sacrifice the less important "opulence" (204, 1); and (2) the case of articles taxed at home by the excise, where a corresponding customs duty may be imposed (204, 2).

Taxes, extending as they do now to the very necessaries of life, increase the cost of labour, produce the same effects as a poor soil and bad climate, and pull down

rich countries to the level of poor ones (204, 1). If other countries tax our goods, it is not clear that we gain by retaliation. It is a question for that "insidious and crafty animal" the politician to decide, whether the retaliation is likely to secure its end; if it does not, we have simply injured our whole people in order to revenge an injury done to one particular section of the people; we have *benefited* nobody, not even the sufferers (206,1). It is true that for humanity's sake repeal of restrictions should be gradual; yet the disbanding of a particular class of manufacturers causes much less distress than the disbanding of an army. "It is easier to change the direction of industry from one sort of labour to another than to turn idleness and dissipation to any." Unhappily it would be utopian to expect the adoption of free trade: the monopolists are too strong (206, 207). The legislature should be careful to create no more of them, and should guide itself in future "*not* by the clamorous importunity of partial interests but by an extensive view of the general good" (208).

Besides restraints due to self-interest and the spirit of monopoly, there are those due to national prejudice and animosity, such as on the trade with France. These are unreasonable both on the principles of the commercial system itself and on general principles. On the former, because, when articles are imported more cheaply from France, for example, than from other quarters, then the sum total of our importations must in value be less than if they must be got elsewhere, and the "balance" *must* be the more in *our* favour (208, 209). Adam Smith himself thinks slightingly of the "balance," and doubts if we can ever depend on custom house returns for knowledge of it. He refers to the complication of European trade; thinks we probably pay for Hamburg goods by bills on Holland; and takes occasion to make a long digression on the bank of Amsterdam and other banks of deposit (211-15). Returning to the restraints on such trades as the French, he gives his second proof of their "unreasonableness," namely the proof from general principles. The whole idea of the balance of trade is full of error. It implies that, when two people trade with each other and the balance of advantage is even, then neither gains and neither loses, but, when it inclines to one side then one gains and the other loses in exact proportion to the decline from equilibrium. But it is not so. "That trade which without force or constraint is naturally and regularly carried on between any two places is always advantageous, though not always equally so, to both" (216, 1). The advantage is to be measured not by the precious metals but by increase of revenue. Where two places both exchange home goods, they will usually gain equally, since each is replacing a capital used in preparing a surplus for a foreign market. Where the trade is in home goods for foreign goods, as when England buys French wines for Virginian tobacco, then both gain but not equally. The revenue derived from the trade goes entirely to French industry on the one side but not entirely to English industry on the other. If the foreign goods had been gold, England would have been neither more nor less impoverished than if they had been tobacco. There is always some gain. The people are the richer for having more goods to enjoy in place of a surplus they do not want. As the "trade with the ale-house" is not necessarily a losing one, neither is the trade in wine or tobacco (217). We kept up our duties on French wine in order to benefit the Portuguese who dealt at our shop, thus erecting "the sneaking arts of underling tradesmen into political maxims for the conduct of a great empire" (218, 2). Nations have been taught that it is their interest to beggar their neighbours, and commerce, which is naturally a bond of union, has been *made* a source of discord. We cannot hope to extinguish the injustice of rulers, but we can surely prevent "the mean rapacity, the monopolising spirit of merchants and manufacturers who neither are nor ought to be the rulers of mankind, from disturbing the tranquillity of anybody but themselves" (218, 2). "The interest of the great body of the people" is to buy whatever they want of those who sell it cheapest; and it is their interest that neighbouring nations should be rich, not poor (219, 1). The important balance is not that of trade, or Holland for example, as well as our American colonies, would long ago have been ruined, but of the annual production and consumption; the value of the produce must exceed that of the consumption. This favourable balance may exist in a country without any foreign trade at all, just as "in the whole globe of the earth, of which the wealth, population, and improvement may be either gradually increasing or gradually decaying" (221, 1).

Adam Smith proceeds to examine the various expedients "merchants and manufacturers" have devised for the encouragement of exportation. The first is DRAWBACKS, for which he has little but praise, as a drawback tends to restore the natural distribution of labour and capital disturbed by duties (IV. iv. 221, 222, 223). BOUNTIES, on the contrary, find little favour with him (IV. v.). They are of two kinds: (*a*) on exportation, (*b*) on production. The former are his special abhorrence. As we cannot force foreigners to buy from us, we pay them for buying. Bounties are only given to trades too weak to stand by themselves, their expense being greater than the return. If all trades were like them, there would soon be no capital left in the country (224). Bounties force trade into channels where it would not run of its own accord. Since the establishment of the corn bounty under William III., the value of the exported corn has exceeded that of the imported by much more than the bounty; but the price of the exported corn has to replace the farmer's capital with ordinary profits or else "the national stock is so much diminished"; and the bounty is given because the price is supposed to be insufficient to do this. The cost to the society is therefore not only the bounty but a whole capital and profits devoted to an unprofitable employment (224). The bounty tends to raise the price in the home market, both in years of plenty and years of scarcity. It is true that, as a matter of fact, since the bounty, *prices* have been low, but that is in spite of the bounty, and, he added in 1784, because of the rise in silver. Adam Smith in his Glasgow lectures (see *Lectures*, pp. 181-82) had at first allowed that the bounty might have occasioned a lowering of price; but the contrary is his riper view, and it is significant that in the 3rd ed. of the *Wealth of Nations* he adds to his arguments. The extension of the market, he says, is at the expense of the home market, and imposes two taxes on the people, first the tax to pay the bounty, second the increased price of the home corn, the second being the heavier of the two. The higher price to the farmer is an illusory benefit, for he must raise the wages of his labourers in proportion. The effect is not a rise in the real value of corn but a fall in the real value of silver (226). Now such a fall, if due to the fertility of the *mines*, would be equal for all parts of the commercial *world*; but, if due to a particular circumstance in one country, it is a discouragement *to* that country. Spain hinders the exportation of gold and silver; but the effect is as when water is dammed up; soon, as much will pour over the top of the dam as would have come if there had been no dam at all; prices will increase in Spain to the injury of Spain, till they are high enough to flow over. The injured party is Spain itself. Now the bounty alters the level in the same way, making silver cheaper, and only injuring our own people (227, 228).

The injury extends to the country gentlemen who were so misguided as to procure the bounty, for, by lowering the real value of silver, they tended to discourage the general industry of the country, and especially the improvement of their own lands (229). If bounties on exportation lowered prices, as some allege, it is curious that "I have known" "undertakers of some particular works" to give a bounty among themselves on the exportation of goods which they feared would overstock the market (230, 1). He does not dwell long over bounties to production, the chief instance of which was the herring bounty. He would allow them only for warlike supplies and naval stores. But premiums for manufactures he considers not only pardonable but praiseworthy. He quickly launches us on a long "Digression concerning the Corn Trade and Corn Laws," a characteristic passage (232-42). He shows (1) that the interest of the inland dealer coincides with that of the public; prices should be such that the supply will just outlast the season, as a ship's rations the voyage (233). Engrossing and combination are mere phantoms (234). Yet in the fear of them the legislature has tried to force the farmer to be his own dealer. "The law which prohibited the manufacturer from exercising the trade of shopkeeper, endeavoured to force this division in the employment of stock to go on faster than it might have done; the law which obliged the farmer to exercise the trade of a corn merchant, endeavoured to hinder it from going on so fast; both laws were evident violations of natural liberty and therefore unjust; and they were both too as impolitic as they were unjust" (236). But

the latter was the worse, for it prevented the farmer from devoting all his capital to the cultivation of his land (237).

Adam Smith then shows (2) that the interest of the merchant importer is also that of the public. He lowers prices, but this means a higher real value of silver, and is otherwise a public benefit (239). The frequent suspension of the duties on importation is a symptom of their impropriety (239).

(3) The trade of the merchant exporter indirectly contributes to a plentiful supply at home, for, unless the growers know that any surplus will find a market, they will pinch the supply intended for home consumption. When encouraged by a bounty, he may, it is true, find it his interest to carry out corn from his own country during a scarcity, if there were actual famine, and therefore still higher prices elsewhere. Hence the suspensions of the bounty on such occasions. "Were all nations to follow the liberal system of free exportation and free importation, the different states into which a great continent was divided would so far resemble the different provinces of a great empire. Among the different provinces of a great empire, the freedom of the inland trade appears both from reason and experience not only the best palliative of a dearth but the most effectual preventive of a famine; so would the freedom of the exportation and importation trade be among the different states into which a great continent was divided" (240, 2). But at present the bad policy of one country hinders the adoption of the best policy by another. "The laws concerning corn may everywhere be compared to the laws concerning religion"; the people are so deeply interested in their present food and their future happiness that government must yield to their prejudices for the sake of peace in both cases (241, 1). Finally (4) the trade of the merchant carrier, or importer of foreign corn for re-exportation, is for the public interest, for when his corn is here and prices rise he will find it his interest to sell here, and thus contribute to plenty (241).

It thus appears that our legislation on corn deserves little praise. British prosperity did not spring from that source, but from political security, and "the natural effort of every individual to better his own condition." The prosperity has been posterior to the bounty, but "it has been posterior likewise to the national debt," and "the national debt has most assuredly not been the cause of it" (241, 2). It is fair to add that throughout this chapter (v.) Adam Smith recognises that later laws have often been wiser than earlier, and have given hope of better times.

In the following chapter (vi.) on "Treaties of Commerce," the METHUEN TREATY between England and Portugal is roughly handled. The relations between the mint and the bullion market are incidentally discussed. Then comes the long and important chapter on "Colonies." Ancient colonies were founded because of "irresistible necessity," or "evident utility," the modern from neither of these, but from love of gold (250, 251), or desire to escape oppression (264, 2). Yet the prosperity of many of the modern has been rapid. The colonists bring with them arts and agriculture, laws and government; they find abundance of good land, no rent or taxes, and a scarcity only of labour. The result of this last is high wages and the encouragement of population (253, 254). English colonies have thriven better than Spanish because their home government paid less attention to them. The Danish, Dutch, and French colonies prospered much more rapidly when their exclusive companies fell (254-6). The English colonies, though better treated than the others, have not escaped interference. The Act of Navigation, it is true, leaves their best raw materials "non-enumerated," but hinders many important manufactures, in "manifest violation of the most sacred rights of mankind" (261, 2). "The policy of Europe" has little to boast of as regards the colonies; Europe bred the men who made the colonies, and the colonies owe it gratitude for nothing else whatever (264, 265). Europe itself, "considered as one great country," may thank the discovery of America for increasing its enjoyments and increasing its industry. "New values, new equivalents" were introduced into European trade (265). By restricting the American trade Europe is diminishing both the enjoyments and the industry, and putting "a dead weight upon the action of one of the great springs which put into motion a great part of the business of mankind." It gains no military strength. The whole benefit to the mother country is supposed to be the exclusive trade. "To promote the little interest of one little order of men in one country, it hurts the interest of all other orders of men in that country, and of all men in all countries" (276, 1). The benefit to the merchants soon ceases when their high profits attract competitors at home who reduce their profits again; but there is mischief done in the diversion of capital (267, 268). Adam Smith allows that the Act of Navigation has kept the rate of profit up to a greater height than would have been the case under free trade in the branches concerned. But he considers high profits to be at least as great a disadvantage as high wages (269, cp. 275 *et seq.*). Moreover, the colonial trade is of slow return, and therefore increases the annual produce of land and labour much less than a home trade (270). The monopoly has, besides, forced capital from a trade with a near country to a trade with a distant, and has turned a direct trade into a roundabout one (270, 271). British commerce, instead of running in a number of small channels, has been forced into one great channel, at the cost of security and healthiness, as if in the human body one great blood-vessel had been swelled unnaturally at the expense of the rest (272). Some relaxation in the direction of free trade is the only safeguard; but the remedy might be for the moment worse than the disease. Let the legislators find out the best way of restoring "the natural system of perfect liberty and justice" (273, 1). As long as the monopoly is regarded as the chief benefit of the colonies, they will continue to be a source of expense to the mother country, especially for defence, for they do not strengthen it. "Great Britain is, perhaps, since the world began, the only state which, as it has extended its empire, has only increased its expense without once augmenting its resources" (277, 280, 1). The colonies might, perhaps, be taxed by a representation of them in the British parliament, which would have many indirect effects (280, 281), including perhaps the removal of the capital to America, soon to be the richest part of our empire (282).

In the East Indies we have seen a somewhat different example of the effects of monopoly. In America all nations have claimed to engross the whole market of their colonies; in the Indian seas the ports have been open to all nations, but each nation has had an exclusive company. The result is to divert from a rich country, like Holland, its full share, and give to a poor one, like Denmark, more than its full share of the trade (285, 1). The result is also, as regards the sovereign, to waste his revenue and lessen the powers of the subject peoples to produce revenue for him (287, 2). The EAST INDIA COMPANY has tried to combine the two functions of trading and governing, which are quite incompatible. "It is a very singular government in which every member of the administration wishes to get out of the country, and, consequently, to have done with the government as soon as he can, and to whose interest, the day after he has left it and carried his fortune with him, it is perfectly indifferent though the whole country was swallowed up by an earthquake." It is less the fault of the men than of their situation. The fact is that "such exclusive companies are nuisances in every respect" (289, 2).

To these seven chapters on the mercantile system Adam Smith added in his 3rd edition an eighth chapter, "Conclusion of the Mercantile System," which is mainly an account of some particular cases where importation was encouraged or exportation discouraged, still on mercantile principles (289, 2). He takes occasion to remark that "it is the industry which is carried on for the benefit of the rich and powerful that is principally encouraged by our mercantile system; that which is carried on for the benefit of the poor and the indigent is too often either neglected or oppressed," as in the case of linen yarn (290, 2). The wool trade provides examples of protective laws which, "like the laws of Draco, may be said to be all written in blood," but were too cruel to be put in operation (292). In all these cases a great principle is violated. Not only could tools not be exported, but "the living instrument, the artificer," was to be kept from moving so far as possible (297, 298). "Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it" (298).

The agricultural systems (ch. ix.) "represent the

produce of land as either the sole or the principal source of the revenue and wealth of every country" (299, 1). The most important of such systems is that of the French economists (see PHYSIOCRATS). It was a reaction from the excessive attention of COLBERT to manufactures. "If the rod be bent too much one way, in order to straighten it you must bend it the other" (300, 1). Quesnay, "himself a physician, and a very speculative physician," seems to have thought that the political body would thrive only under a particular regimen, namely, of perfect liberty and perfect justice. He did not see "that in the political body the natural effort which every man is continually making to better his own condition is a principle of preservation capable of preventing and correcting in many respects the bad effects of a political economy in some degree both partial and oppressive"; otherwise no nation anywhere would have prospered (304, 305). In detail, the capital error of the theorists consists in representing the labour of artificers, manufacturers, and merchants as unproductive. (1) If this class annually reproduces, as they grant, the value of its consumption, it is not barren, any more than a marriage which produced a son and a daughter. It is true that agriculture is *more* productive. (2) The labour of menial servants is not worthy to be classed with that of manufacturers; the latter is fixed or realised in a vendible community; the former alone is barren. (3) It is not true that the manufacturing class do not increase the real revenue of the society. The value of what they produce is added to what they consume, and is all revenue (305, 306). (4) It is true that they can only increase the real revenue by parsimony, but this is equally true of the agricultural class. (5) Even if revenue always meant subsistence, it is greater with than without manufactures. Manufactures draw subsistence, from abroad for instance; and a small part of manufactured produce purchases a great deal of raw produce (306).

Nevertheless the theory never did any harm in the world, and it does good by representing wealth as consumable goods, and perfect liberty as the only effectual expedient for raising the annual produce to a maximum (307).

If agricultural systems go farther than this [as in China, Egypt, and India], they may err as much on the one side as the mercantile system on the other (308, 310).

Here is the conclusion of the whole matter: "All systems, either of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man or order of men. The sovereign is completely discharged from a duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human wisdom or knowledge could ever be sufficient—the duty of superintending the industry of private people, and of directing it towards the employments most suitable to the interest of the society" (311, 1).

By this "system of natural liberty" the sovereign has only three duties—the protection of the society against other societies, the securing of justice between man and man, and the undertaking of such public works as are too great for individuals and yet necessary to the community (311, 1). In the fifth book, accordingly, Adam Smith considers the revenue of the sovereign or commonwealth, and its threefold employment, explaining, (*a*) which expenses are to be defrayed by a general contribution of the whole society, and which by contribution from particular members only; (*b*) what are the different methods of raising the general contribution; and (*c*) what has caused the mortgage of these revenues or the contraction of debt, and with what effects (311, 2).

Among barbarous nations defence costs little to the sovereign. The progress of manufactures and the improvements in the art of war have increased the expense of armies for the protection of the country (313). To be a good soldier, too, a man must devote his whole time to the business, and we cannot depend on militias (314). The latter can learn the use of arms, but not that habit of ready obedience which is more important (316, 1). But standing armies and modern weapons mean great expense, and give advantage to the richer nations, and therefore to civilisation (319).

The administration of justice, too, is of very different costliness in different times. Men who have no property can only injure each other in their persons or reputations, and nobody is the gainer; but, where property is concerned, there may be a gain equal to the loss. The injury to reputation is prompted by the transient passions of "envy, malice, resentment," often restrained by prudence; and where there is little or no property, there need be no civil magistrate. "But avarice and ambition in the rich, in the poor the hatred of labour and the love of present ease and enjoyment, are the passions which prompt to invade property, passions much more steady in their operation and much more universal in their influence. Wherever there is great property there is great inequality. For one very rich man there must be at least 500 poor, and the affluence of the few supposes the indigence of the many. The affluence of the rich excites the indignation of the poor, who are often both driven by want and prompted by envy to invade his possessions." Without the aid of the civil magistrate there could be no security for the rich man (319, 2). Civil government is founded on an antecedent subordination, which may be due (*a*) to the respect for bodily, and especially mental, superiority; (*b*) to the respect for age; (*c*) to the respect for fortune. "The authority of riches, though great in every age of society, is perhaps greatest in the rudest age of society which admits of any considerable inequality of fortune" (320); (*d*) to respect for birth, which supposes ancient fortune or the greatness which brings fortune with it. "There never was, I believe, a great family in the world whose illustration was entirely derived from the inheritance of wisdom and virtue" (321, 1). Thus birth and fortune are the two chief circumstances that set one man above another antecedently to civil government; and regard for them establishes order and authority apart from any perception of the usefulness thereof. Once government is introduced, the utility of it as a defence of the rich against the poor becomes evident enough (321, 2).

Adam Smith's short historical sketch here of the judicial system in England corresponds to a much longer one in the *Lectures* (pt. i. div. i.). The subject belonged to the projected and never-executed treatise on jurisprudence. He is not quite content with things as they are. He is satisfied, indeed, with the separation of judicial and executive powers, being always suspicious of the interference of politicians; and he would maintain the irremovableness of judges. But he thinks the whole expense of law proceedings might be met by fees of court, on the ground that "public services are never better performed than when their reward comes only in consequence of their being performed" (323, 2). The only risk would be the temptation to encourage litigation (324, 2).

The subject of public works is treated at much greater length. There are, 1st, the public works and institutions for facilitating the commerce of the society, either as a whole or (as was added in 1784) in particular branches. Roads, bridges, and canals are for the general benefit of commerce. Canals may be left to private persons to manage; not so the roads, which should be left neither to private persons nor to government, but to local road-commissioners. Government might raise the tolls too high, oppress the poor more than the rich, and neglect repairs with impunity (326-327).

The coinage yields the state a profit (SEIGNORAGE), and the post-office is one of the few commercial enterprises all governments have successfully managed (325, cp. 368). As to the assistance of commerce in particular branches, we have instances in the forts for protection of African and East Indian traders, and ambassadors to watch trading interests in foreign courts (329); and we have worse instances in the powers given to REGULATED COMPANIES, such as the TURKEY COMPANY and the AFRICAN (331, 332), and still more to the JOINT-STOCK COMPANIES, like the SOUTH SEA COMPANY (333, 335, 336), and (greatest of all) the EAST INDIA COMPANY. The story of the last is given at some length (336-9), and the comments are very unfavourable. A temporary monopoly, he says, is perhaps the best recompense the state can give for "a dangerous and expensive experiment of which the public is afterwards to reap the benefit," just as with a new machine or a new book;

but the term ought to be fixed and thereafter the trade laid open. Without a monopoly, a joint-stock company cannot long carry on any branch of foreign trade; it would fall before private adventurers (339, 2). The only trades where this would not happen are those capable of being reduced to routine, such as (*a*), banking; (*b*), insurance; (*c*), canal-making and canal-management; (*d*), water supply (340, 1). To authorise the "establishment" [in the Scotch sense of an Established Church] of a joint-stock company it should appear that the utility of its object would be more general than in common trades, and that more capital is needed than can be got by private partnership. This was so with the Bank of England (340, 341).

There are, 2nd, the public works for the education of youth (V. i. art. 2, 341-353). Our author gives his views on education freely. The teacher is best paid by his fees, which are his "natural revenue." Through all Europe, however, he has been largely supported by endowments, and consequently he has had the less motive to do his utmost. "In every profession the exertion of the greater part of those who exercise it is always in proportion to the necessity they are under of making that exertion" (341, 2). "It is the interest of every man to live as much at his ease as he can," and endowments set his interest at variance with his duty. We see the effects in the state of the universities, especially Oxford, where the professors do not teach at all (342), and the tutors teach in the manner easiest for themselves. "Where the masters really perform their duty there are no examples, I believe, that the greater part of the students ever neglect theirs." After twelve or thirteen years of age force or restraint is quite unnecessary in education. "Such is the generosity of the greater part of young men," that if the master shows a serious desire to serve them they pardon a great many shortcomings (343).

Where there are no public institutions, as with fencing and riding, the teaching is best, and the private schools teach children to "read, write, and account" better than public schools (344, 1). There are no public institutions for women's education, and it has much more usefulness and less absurdity than men's (350, 1). If it be said that, though the universities teach badly, but for them their subjects would not be taught at all, Adam Smith answers, at some length, that their subjects were originally intended for the medieval clergy and are quite unsuitable now (344-6). The poor Scotch universities have adapted themselves to the changed times much better than the richly-endowed English universities and the "learned societies" which are the sanctuaries for "exploded systems and obsolete prejudices" (347). Nothing but the discrediting of the universities could have led to the practice adopted by our gentlefolks, of sending their sons at seventeen or eighteen for three or four years of foreign travel. They return home with an imperfect knowledge of some foreign languages, and a greatly-increased conceit and incapacity of application (347). From Adam Smith's biography it is clear that the foreign tour he made with two young pupils was a benefit to both parties, and it is surprising to find so unqualified a condemnation of such tours in the *Wealth of Nations*.

The history of Greek and Roman education lends no support to the modern English system (347-9). Endowments came late. The ancient philosophers, who acquired great power over their hearers, depended entirely on their own exertions; not as now, when the private teacher, as opposed to the privileged, is like the merchant without a bounty competing with a rival who has a considerable one. "The endowment of schools and colleges have [*sic*] in this manner not only corrupted the diligence of public teachers, but have rendered it almost impossible to have any good private ones" (349, 2).

Ought there, therefore, to be no public institutions for education? Adam Smith answers: Yes, they are needed for the education of the common people. In these days of division of labour all variety, elasticity, and spirit are taken out of a workman's life. "His dexterity at his own particular trade seems to be acquired at the expense of his intellectual, social, and martial virtues"; and in every civilised society this will be the state of the labouring poor, the great body of the people, "unless government takes some pains to prevent it" (350, 2). In a rude people there is much variety in the occupations of the individual, little in those of the whole society; in a civilised, the exact opposite is true; but the result must be mischievous, even for defence, if not prevented. To secure every man the opportunity of acquiring the essential parts of education would be well worth the expense. In Scotland it is fairly done in the parish schools; in England, though less well, in the charity schools. Compulsion might take the form of a provision that a certain amount of education should be the condition of apprenticeship in trades. It would be well to supplant Latin in the parish schools by geometry and mechanics that would be useful to every working man (351-2). A well-instructed people are always more decent and orderly than a stupid one, and in a free government we should neglect no means of making the people wise (353, 2). Adam Smith is said to have expressed strong approval of Robert Raikes and his Sunday Schools as a step in the right direction (Rae, p. 407).

There remain, 3rd, the public works and institutions for the instruction of the people of all ages. Adam Smith's reasonings about religion are of a piece with those on education. He inclines (355) to a purely voluntary system, the resulting competition of sects making the churches singly harmless against the state, and the effects of austere enthusiasm being corrected by philosophy on the one hand, and public amusements, especially the drama, on the other (357). The mischievous power of the Romish Church was weakened most effectually when the great barons and the Episcopal clergy discovered that modern improvements enabled them to spend their wealth on themselves (361). Where there is an established church, it is better that it should be, as in Scotland, of only moderate wealth (366, 1).

Finally, there is to be considered the expense of supporting the dignity of the sovereign, which must naturally be something greater than that of a lord-mayor (366, 2).

From the expenses, we pass to the sources of revenue from which they are to be met (367, ch. ii.). The sovereign in some cases has a fund or source of revenue of his own, as in Holland and Venice a bank, in Hamburg a wine cellar and apothecary's shop (367, 2). The government of England would be ill-advised if it undertook banking (368, 1). The POST OFFICE is within its powers (see above). It manages the crown lands ill, and is quite incompetent to undertake the management of all the lands of the kingdom (369, 370).

Whence, then, is its revenue to come? Plainly, from taxation, for which we may lay down four maxims "recommended by evident justice and utility" (372).

(1) *Equality.*—The subjects should pay "in proportion to their respective abilities"; in other words, to the revenue they enjoy under the protection of the state. "The expense of government to the individuals of a great nation is like the expense of management to the joint-tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate." It is neglect of this maxim which causes inequality. It is true that "every tax which falls finally upon one only of the three sorts of revenue is necessarily unequal in so far as it does not affect the other two"; but this is over and above the other inequalities which will be considered in detail, those that are caused in the course of the taxation of one and the same kind of revenue (371, 2).

(2) *Certainty.*—A very considerable degree of inequality is a less evil than a small degree of uncertainty and arbitrariness.

(3) *Convenience.*—The tax ought to be levied at the time and in the manner in which it is most likely to be convenient for the contributor to pay it (371, 372).

(4) *Economy.*—The tax should take from the people as little as possible that is not to reach the public treasury. The maxim is violated (*a*) when the salaries of tax-collectors eat up the proceeds, or their perquisites form a second tax; (*b*) when the tax obstructs and discourages industry; (*c*) when it ruins individuals through penalties, and through temptations to evasion and smuggling. "The law contrary to all the ordinary principles of justice first creates the temptation and then punishes those who yield to it"; (*d*) when it inflicts odious visits of the tax-gatherer, not strictly an expense, but a discomfort from which a man would be glad to redeem himself by expense. In all these four ways a tax may be "more burdensome to the people than beneficial to the sovereign" (372, 1).

By the four maxims Adam Smith proceeds to judge the various taxes, existing or proposed, especially in

England, but with abundance of illustrations from other nations.

The land tax, owing to the stationary valuations and varying improvement of different counties in cultivation, has become unequal. It agrees with the other three maxims (372, 2). The tithe, being a tax not on rent but on produce, is unequal, "a certain portion of the produce being in different situations equivalent to a very different proportion of the rent." On rich lands the tenant might afford more, on poor he may be unable to afford as much. The tithe is a great obstacle to improvement (377, 1).

The section dealing with taxes upon the rent of houses (378-381) is abreast of most modern discussions of the subject. The author presents a clear view of the speculative builder and his relations to the ground landlord. He thinks, however, "A tax upon house rent, payable by the tenant and proportioned to the whole rent of each house, could not for any considerable time at least affect the building rent. If the builder did not get his reasonable profit he would be obliged to quit the trade, which, by raising the demand for building, would in a short time bring back its profit to its proper level with that of other trades. Neither would such a tax, say of 5s. in the pound, fall altogether upon the ground rent; but it would divide itself in such a manner as to fall partly upon the inhabitant of the house and partly on the owner of the ground" (379, 1). For the tenants of houses at £60, for example, would now content themselves with houses at £50, and so down the scale till the lowest class is crowded. All except the lowest would fall in value, and the ground landlord would suffer. The tenant would suffer the inconvenience, and the landlord the loss of revenue (379). There would be inequality because of the different proportion of house rent to income in the case of men of different fortune. "It is perhaps highest in the highest degree [of fortune], and diminishes gradually through the inferior degrees, so as in general to be lowest in the lowest degree."[1] It is food that is most necessary to the poor (see WORKMEN'S BUDGETS), and most of their revenue is spent on food. A tax on house-rent would therefore fall most heavily on the rich. "It is not very unreasonable that the rich should contribute to the public expense not only in proportion to their revenue, but something more than in that proportion." (*ib.*)

Rent of land is for a productive object, of houses for an unproductive. The rent of the houses is, therefore, drawn from some other revenue, either wages, profits, or rent of land, like taxes on consumable goods. There is no better way of judging of the "liberality or narrowness of a man's whole expense" than by seeing what his house-rent is (380, 1). Apparently it was thought better to tax the hearth or the windows, because of some fancied difficulty in ascertaining the rent of the house and taxing that directly. The first way, HEARTH TAX, was odious and soon dropped. The second, window tax (see TAXATION), involves inequality of the worst kind (381).

Prof. Bastable (*Public Finance*, 1892, p. 396, compare Rae's *Life of Adam Smith*, p. 294) points out that in 1778 Lord North adopted our author's suggestion of an INHABITED HOUSE DUTY. No government has yet adopted his further suggestion of a tax on ground rents, though he says these are "a still more proper subject of taxation" than house rents. In both cases he considers there is a revenue derived by the owner without any particular care of his own, and the real wealth and revenue of the people might be the same after such a tax as before (380). He is not in favour of the taxing of profits or interest. A man's rent can be known, but less easily his capital and profits, and they are subject to continual variations; moreover, "the proprietor of stock is a citizen of the world," and if you tax him heavily he will remove his stock elsewhere, to the injury of the national industry (383). The land tax was intended to include capital, but it has rarely or never done so effectually (383). Elsewhere the plan has been tried in reality, as in Hamburg, Zürich, and Holland (384). As to taxes on the profits of particular employments, they will always in the end fall on the consumers, though, if not proportioned to the amount of trade, they may, as in hawkers' licences, oppress the small dealer (384). The personal TAILLE in France is the most important tax in Europe on the profits of the cultivator. It is both arbitrary and unequal; and it discourages cultivation (385-86). The poll taxes in the southern states of North America are really on the profits of "a certain species of stock employed in agriculture," namely, negro slaves. There was once in Europe a similar tax on bondmen, and hence taxes were represented as badges of slavery. But taxes to the payer of them are a badge not of slavery but of freedom (387). Lord North introduced a tax on manservants in 1777, but hardly on our author's suggestion, as the reference (387, 1) to the tax on manservants is to a tax already imposed, and occurs first in the second edition of the *Wealth of Nations*, 1778, where the comments on it are not entirely favourable.

Death duties are treated under the head of "Taxes upon the capital value of Land, Houses, and Stock" (V. ii., app. to art. i. and ii. 387-90). They are usually stamp-duties or duties on registration. They fall on the inheritor. Taxes on the sale of land fall on the seller, who usually is more necessitous than the buyer; whereas taxes on the sale of houses, if they are old, fall on the seller, and, if new, on the buyer (389). Duties on law proceedings fall on the litigants, and reduce the capital value of the property in dispute (389). All taxes on the transference of property, so far as they diminish its capital value, "tend to diminish the funds destined for the maintenance of productive labour. They are all more or less unthrifty taxes, that increase the revenue of the sovereign, which seldom maintains any but unproductive labour, at the expense of the capital of the people which maintains none but productive." Though not arbitrary, and not levied inconveniently, they are unequal (390, 1).

Direct taxes on wages (art. iii.) are open to special objections. As shown in bk. i., wages depend on the demand for labour and on the average price of provisions. A tax on wages, when provisions have not fallen, will simply raise wages, and somewhat higher than the amount of the tax (390, 2). It will not raise the price of corn, for the farmers recover the additional wages out of the rent of the landlord (391). But the salaries of officials may be taxed without hardship to any one (392, 1).

The next group considered is that of "taxes intended to fall on every different species of revenue indifferently" (art. iv.). The chief are (*a*) capitation taxes, which are liable to be both unequal and arbitrary (393, 1), and (*b*) taxes on consumable commodities. The latter are a means of taxing the revenue of the subject "indirectly" by the taxing of their expenditure, which is thought to be in proportion to that revenue. The effects differ according as the commodities taxed are (*a*) necessaries; (*b*) luxuries. Necessaries include not only what is indispensable for support of life, but what custom renders it indecent for respectable people, however poor, to be without. All other things are luxuries. If necessaries are taxed, wages will tend to rise in proportion (393). "The labourer, though he may pay it [the tax] out of his hand, cannot, for any considerable time at least, be properly said even to advance it. It must always, in the long run, be advanced to him by his immediate employer in the advanced rate of his wages." If the employer is a farmer, he recovers from his landlord; if not a farmer, he recovers from the public in higher prices (394). It is otherwise with luxuries. A tax on tobacco, spirits, or tea, will not raise wages, but will act as a sumptuary tax, and may even have the effect of increasing the power of the industrious poor to bring up a family by causing retrenchment. As for the disorderly and idle, their children survive, if at all, only to be public nuisances (394).

In Adam Smith's time there were many taxes on necessaries. Salt, soap, and coals, to say nothing of corn, were taxed. Instead of a tax on coal carried coastwise, a *bounty* might even be allowable, says our author (395). Consideration of the ways of levying taxes on consumable goods leads us back, of course, to the ways and means of the mercantile system. High duties have increased smuggling, so that, "in the arithmetic of the customs," two and two make often only one. Bounties have even created a new kind of smuggling; goods after being once shipped are fraudulently relanded that the cargo may get the bounty again. The result of this smuggling and of drawbacks together, is that the customs produce much less to government than is extorted from the public (398). "Heavy duties being imposed on almost all goods imported, our merchant importers smuggle as much and make entry of as little as they can. Our merchant exporters, on the contrary, make entry of more than they export, sometimes out of vanity and to pass for great dealers in goods which pay

[1] This could not be said now.

no duty and sometimes to gain a bounty or a drawback. Our exports, in consequence of these different frauds, appear upon the custom-house books greatly to overbalance our imports, to the unspeakable comfort of those politicians who measure the national prosperity by what they call the balance of trade" (399, 1). In any case the system of our customs is inferior in clearness and precision to that of our excise, and should be remodelled accordingly (399, 1). We should have more moderate taxes on fewer and better chosen objects if we want a larger revenue (399, 2). We should adopt the bonding system, and at the same time relieve all necessaries and materials of manufacture from taxation (399, 400). "The value of money is in proportion to the quantity of the necessaries of life which it will purchase; that of the necessaries of life is altogether independent of the quantity of money that can be had for them" (400, 2). We should, therefore, cheapen them. The whole consumption of the poor is in every country much greater not only in quantity but in value than that of the rich and the middle classes. Taxes on expenditure, therefore, falling chiefly on the higher ranks, will produce less than taxes falling on all ranks. So the excise on liquors is of all such taxes the most productive. The private brewer, however, escapes it, and the tax becomes unequal. It would be better, therefore, as has often been proposed (401), to put a single tax and a lighter one on malt, which will bring in much more because collected more surely (402, 403). This was one of the taxes which North is said to have borrowed from Adam Smith (Rae's *Life of Adam Smith*, p. 294), though our author was hardly the inventor of the idea.

It should be noted that though he considers beer and ale "wholesome and invigorating liquors," he speaks less confidently of spirits, and would retain the heavy taxation of distilleries as a sumptuary tax (403). He would also retain taxation of sugar on the ground that the planters themselves say the price is at a maximum, and therefore it would seem a monopoly price; now "the gains of monopolists, whenever they can be come at, are certainly of all subjects [of taxation] the most proper" (404, 1).

But on the whole he is not favourable to the taxation of commodities even when they are luxuries. Not only are they unequal, for the Irish ABSENTEE, for example, may draw a rich revenue and pay no taxes (405, 1), but they offend against the fourth maxim [of Economy] in every possible way (405-7). In France the defects of such taxes appear still more clearly, for the French system is worse than the English. In this respect the Dutch also are not in advance of us (409-10), though we must allow for their special difficulties (411).

Going on now to his last subject, public debts (V. iii.), he begins with a genial contrast between the present times and the good old times, when there was hospitality without luxury, and liberality without ostentation (411, 2). Nowadays our manufacturing industry prepares luxuries which minister to the frivolity and pageantry of rulers; and the parsimony that leads to accumulation prevails as little in republican governments as in others. "The want of parsimony in time of peace imposes the necessity of contracting debt in time of war" (412). But the very causes which make it necessary for the government to borrow, produce in the subjects the ability and inclination to lend, namely, the abundance of manufactures, the presence of merchants and manufacturers trading not only with their own capitals but with borrowed, and the existence of that confidence which comes from a settled state of society and just government (412, 413). "The progress of the enormous debts, which at present oppress, and will in the long run probably ruin all the great nations of Europe, has been pretty uniform." Governments first borrowed on personal credit, hence the unfunded debt; then on mortgage of particular taxes, hence the FUNDED DEBT (413, 414). If they had been content with anticipation of taxes, they would soon have freed themselves from debt; but no governments have been able to confine themselves to this, thence they are driven to reduce debt by such expedients as (1) a SINKING FUND, which, though raised to pay old debts, facilitate the contraction of new (414, 415); (2) an ANNUITY, especially favoured in France, where there is greater demand for incomes perishing with the first owner than in England, where the funds are wanted as a readily marketable commodity by business folk (417, 1). The reduction of debt in Great Britain since the "ruinous expedient of perpetual funding" has never equalled its increase in time of war. Adam Smith gives a sketch, drawn largely from other authors, of the growth and vicissitudes of the English debt and its interest (418, 419). His economic judgment on the whole policy is his own. The public funds are not a great capital for the extension of trade; they are a capital converted into revenue, and employed to maintain unproductive instead of productive labourers (419). When public expense is defrayed by funding, it is defrayed by the annual destruction of some capital which had before existed in the country. The waste may be repaired by private energy, and this may be less heavily burdened by funding than if heavy taxes had paid off the debt within the year. But when the war is over the interest remains a constant burden. Moreover, it is good for the citizens to have the meaning of a war brought home to them in heavy taxes, that they may not lightly undertake wars at all. It is no defence of funding to say (420, 421) that it is the right hand paying the left, for (1) foreigners may be the lenders; (2) in any case the lenders are usually not producers, and have no concern in the good condition of land or good employment of capital (422, 1). The liberation of Great Britain from debt is very improbable (424, 2). A great increase of revenue would result, it is true, *from* an extension of the British system of domestic taxation to all the different provinces of the British empire; but these provinces would first need to be represented in a parliament or states-general of the empire. Private interests would probably prevent this. It will be curious, Adam Smith continues, to consider how this idea might be carried out; it may be "a new utopia"; but, if less amusing than the old, it is at least "no more useless and chimerical" (425). So he goes over the taxes *seriatim*, and decides which might and which might not be adopted for the whole empire. If taxed like Great Britain, which has 8 millions of people, with a revenue of 10 millions of pounds, the whole empire, including Ireland with its 2, and the American colonies with their 3 millions, should yield a revenue of 16½ millions of pounds for their 13 millions of people (426). We might deduct one million sterling for the expenses of civil government in Ireland and the colonies. There would be still enough to allow about 6½ sterling for reduction of debt. This is on the assumption that all taxes on necessaries and on materials are removed, to the benefit of all trade and manufacture both here and throughout the empire (427, 1). It is also on the assumption that our author's proposals, for bonding, for a malt duty, and for assimilation of customs to excise, are adopted (428, cp. 426). "The British empire would thus afford within itself an immense internal market for every part of the produce of all its different provinces" (425, 2).

It is just that both Ireland and America should contribute to the discharge of our debt, which was incurred in their cause as well as our own. By a union with Great Britain, Ireland would gain not only freedom of trade, vexatiously obstructed hitherto, but a complete deliverance from an oppressive aristocracy founded on the most odious of all distinctions, that of religious and political prejudice, to which we owe the present mutual hatred of the two countries (430, 1; cp. 425, 2).

A union with Great Britain would deliver the colonies from the factions inseparable from small democracies. "In the case of a total separation from Great Britain, which, unless prevented by a union of this kind, seems very likely to take place, those factions would be ten times more virulent than ever." They would soon break into open violence and bloodshed [witness the events of 1861-65]. At the extremities of a great empire such factions tend to be less formidable than at the centre. In Scotland they are less so than in England, and they would be so in Ireland and the colonies (430, 2).

If this "utopian" scheme still does not yield sufficient revenue, there is nothing for it but a diminution of expense. It is the wars that are expensive, especially those in defence of the colonies. The colonies are "a sort of splendid and showy equipage of the empire." "The rulers of Great Britain have for more than a century past amused the people with the imagination that they possessed a great empire on the west side of the Atlantic. This empire, however, has hitherto existed in imagination only. It has hitherto been not an empire, but the project of an empire; not a gold mine, but the project of a gold mine—a project which has cost, which continues to cost, and which, if pursued in the same way as it has been hitherto, is likely to cost immense expense, without being likely to bring any profit, for the effects of the monopoly of the

colony trade, *it has been shown*, are to the great body of the people mere loss instead of profit. It is surely now time that our rulers should either realise this golden dream in which they have been indulging themselves perhaps, as well as the people, or that they should awake from it themselves and endeavour to awaken the people. *If* the project cannot be completed, it ought to be given up. If any of the provinces of the British empire cannot be made to contribute towards the support of the whole empire, it is surely time that Great Britain should free herself from the expense of defending those provinces in time of war, and of supporting any part of their civil or military establishments in time of peace, and endeavour to accommodate her future views and designs to the real mediocrity of her circumstances" (431, 2, end).

The foregoing account of the *Wealth of Nations*, being largely in Adam Smith's own words, will perhaps enable the reader to understand the influence of the book, which was without parallel in economic literature, and yet was not at first, and is not now, a popular influence. Its first-fruits were the treaty of commerce with France in 1786; Huskisson's reforms followed, a generation later; and by Cobden, Bright, and Peel was realised that free trade which our author himself calls utopian. But Adam Smith's arguments have, as a rule, reached the masses through an interpreter. The reasonings, though clear, are usually close and without sentiment; they are models of what economic reasoning ought to be (cp. ENGLISH SCHOOL, pp. 733, 734).

Adam Smith was not the first to write on political economy, and like other good authors he acquainted himself as far as possible with what had been written and was being written on the subject by others. If we select those to whom he was most indebted, the list would include CANTILLON, DECKER, DUVERNEY, HUME, HUTCHESON, LOCKE, MAGENS, MONTESQUIEU, PETTY, and (though not named in the *Wealth of Nations*) MANDEVILLE, MOREAU DE BEAUMONT, POSTLETHWAYT. He does not mention STEUART; and on the whole he went to contemporaries chiefly for facts, quoting their arguments only to controvert them. The *Lectures* refer to many more (see especially pt. ii. § 9). It seems very probable that he owed to the PHYSIOCRATS the greater prominence given to distribution in the *Wealth of Nations* as compared with the *Lectures* (see *Lectures*, Mr. Cannan's pref., xxx, xxxi). He owed to them also the distinction between value in use and value in exchange. Dugald STEWART (*Pol. Econ.*, ii. 6) tells that the analysis of prices into wages, profits, and rent was suggested by James Oswald of Dunikier, a Kirkcaldy friend, whose *Memorials* (Edin., 1825) show him to have taken an active part in economic discussion as well as political life in the middle of the century. Adam Smith must have picked up many hints in Glasgow among the merchants and manufacturers (see Rae's *Life of Adam Smith*, ch. vii., "Among Glasgow Folk"). He had a hereditary interest in the custom-house. His knowledge of France and Switzerland was gained by personal travel as well as from books, and his knowledge of Holland from friendships there.

There are defects and gaps in the best scientific masterpiece when surveyed critically a century after publication. It has been suggested that Adam Smith gave voice to an industrial revolution of which he was ignorant. There were many inventions that he did not foresee, and a few of which he did not see the importance; but it is evident from such passages as the description of feudal society in contrast with modern (*bk.* III.), and the lamentation over the bad effects of division of labour (*bk.* V. i.), that he recognised the decay and disappearance of the idyllic and medieval stage of English industry. He was conscious not indeed of being on the eve of a revolution, but of being in the full progress of a revolution that had dawned some time before him.

Another general objection is that humanity is represented throughout as governed by selfish motives. The quotations given above are enough to show that the allegation is too sweeping. A passage from the *Lectures* (p. 232) throws some light here: "Those principles of the human mind which are most beneficial to society are by no means marked by nature as the most honourable. Hunger, thirst, and the passion for sex are the great supports of the human species, yet almost every expression of these excites contempt. In the same manner, that principle in the mind which prompts to truck, barter, and exchange, though it is the great foundation of arts, commerce, and the division of labour, yet it is not marked with anything amiable. . . . The plain reason for this is that these principles are so strongly implanted by nature that they have no occasion for that additional force which the weaker principles [*e.g.* generosity] need." This passage occurs in that part of the *Lectures* which is of greatest interest to students of the *Wealth of Nations*, namely, pt. ii., "Of Police." It is precisely here, however, and in pt. iii., "Of Revenue," that we are obliged to accept all statements with reserve, unless they are repeated in the later book. There can be little doubt that the *Lectures* are a genuine copy; but it is also certain that as early as 1778 Adam Smith expressed an anxious desire to destroy the original, thus estimating that it no longer represented his mind on these matters (see *Life* by Dugald Stewart prefixed to *Essays*, p. lxxxix, cp. lxxxvii). It was destroyed with other MSS. at his own request just before his death in 1790 (*l.c.*).

The following is a list of Adam Smith's writings :—

(1) Preface, dated Glasgow, 21st December 1748, to the *Poems on Several Occasions* (of William Hamilton of Bangour), Glasgow, Foulis, 1749. The poet's name is given in the 2nd ed. 1758, where there is a dedication to Wm. Crauford, probably by Ad. Smith (see Rae, pp. 38-41; see also the new edition by Jas. Patterson, Edinburgh, 1850, p. 10).

(2) Two contributions to the *Edinburgh Review*, of which publication the title ran: "The Edinburgh Review Numb. I. To be published every six months. Containing an Account of all the Books and Pamphlets that have been published in Scotland from the first of January to the first of July 1755. To each number will be added an appendix, giving an account of the books published in England and other countries that are most worthy of notice" (Edinburgh, Hamilton and Balfour, 1755, price 1s.). Adam Smith's contribution is in the appendix, art. 3, Johnson's *Dictionary* (a specimen is given in Craik's *English Prose Selections*, vol. iv. pp. 320, 321). Adam Smith re-writes Dr. Johnson's articles on "But" and on "Humour" in his own way.

The *Edinburgh Review*, from July 1755 to January 1756 (no title page), p. 63. *A Letter to the Authors of the Edinburgh Review* (urging that they have been too indiscriminating, and should pick out of European literature only the publications likely to last for, say, thirty or forty years, going on to compare the state of literature and science in Britain with its state on the continent, more especially France, singling out the French *Encyclopédie* for high praise, comparing French and English philosophical works, and ending with an elaborate parallel and contrast between Mandeville and Rousseau). For Adam Smith's authorship of the review and the letter see *Life*, by Dugald Stewart, p. 19; Rae, p. 120-124. There was a reprint, Longman and Constable, Edinburgh, 1818, with authors' names, and preface by Sir Jas. Mackintosh (see Mackintosh, *Miscellaneous Works*, 1854, vol. ii. pp. 466-475).

(3) About this time (1755) Adam Smith wrote a paper vindicating himself from a charge of plagiarism, and showing that he had been teaching the doctrines of natural liberty in matters of trade, not only in his first Glasgow lectures, but in his courses at Edinburgh in 1749. See Dug. Stewart, *Life*, pp. lxxx, lxxxi; Dr. Carlyle's *Autobiography*, p. 285; Rae, 62-65.

(4) *Essays on Philosophical Subjects*, by the late Adam Smith, LL.D., Fellow of the Royal Societies of London and Edinburgh, etc., to which is prefixed an Account of the Life and Writings of the Author by Dugald Stewart, F.R.S.E. (London, Cadell and Davies; Edinburgh, Creech), 4to, 1795. "The greater number of them appeared to be parts of a plan he once had formed for giving a connected history of the liberal sciences and elegant arts. It is long since he found it necessary to abandon that plan as far too extensive; and these parts of it lay beside him neglected until his death" (Advertisement by the Editors, Joseph Black and James Hutton, his executors). The account of the life had been read by Stewart to the Royal Society of Edinburgh, 21st January and 18th March 1793 (*Transactions*, iii. 1794). It was republished in the *Scots Magazine*, January and February 1796; and in the *Biographical Memoirs of Adam Smith, William Robertson, and Thomas Reid*, by Dugald Stewart, Edinburgh, 4to, 1811, with an indifferent portrait. The "Notes," pp. 121-152, are new, and valuable both to the biographer and the economist.

The essays are as follows :—

(*a*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of Astronomy*, pp. 1-93 (written before 1758, see p. 90 and note).

(*b*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of the Ancient Physics*, pp. 95-111.

(*c*) *The Principles which lead and direct Philosophical Enquiries, illustrated by the History of the Ancient Logics and Metaphysics*, pp. 115-129.

(*d*) *Of the Nature of that Imitation which takes place in what are called the Imitative Arts*, pp. 134-184 (probably from the lectures at Edinburgh, 1748-49).

(*e*) *Of the Affinity between certain English and Italian Verses*, pp. 187-194.

(*f*) *Of the External Senses*, pp. 197-244 end (the only psychological essay).

(5) *The Theory of Moral Sentiments*, by Adam Smith, Professor of Moral Philosophy in the University of Glasgow (Millar, London; Kinnaird and Bell, Edinburgh), small 8vo, 1759; 2nd ed. 1761. *The Theory of Moral Sentiments, to which is added A Dissertation on the Origin of Languages.* This addition, pp. 437-478, is described on p. 437 as "Considerations concerning the First Formation of Languages and the Different Genius of Original and Compounded Languages"; 3rd ed. (unchanged) 1767; 4th, 1774; 5th, 1781. In the sixth edition not only was the title expanded, but there were many alterations in the text. It was published in two volumes in the year of the author's death. The title runs now: *The Theory of Moral Sentiments, or an Essay towards an Analysis of the Principles by which Men naturally judge concerning the Conduct and Character first of their Neighbours and afterwards of themselves. To which is added A Dissertation on the Origin of Languages*, by Adam Smith, LL.D., Fellow of the Royal Societies of London and Edinburgh, one of the Commissioners of His Majesty's Customs in Scotland, and formerly Professor of Moral Philosophy in the University of Glasgow. The sixth edition, with considerable additions and corrections, in two volumes (Strahan and Cadell, London; Creech and Bell, Edinburgh, 1790).

(6) *An Inquiry into the Nature and Causes of the Wealth of Nations*, by Adam Smith, LL.D. and F.R.S., formerly Professor of Moral Philosophy in the University of Glasgow, Strahan and Cadell, London, 1776, 2 vols., 4to. (It was really printed at the end of 1775 and beginning of 1776. See preface to third edition.) The second edition, also in two 4to volumes, was published in 1778. There are very few changes. One is noted above. The third edition (1784) is in three volumes 8vo, and has considerable additions, especially in bk. IV., to the chapters on "Drawbacks" and "Bounties." There is a new chapter inserted in bk. IV., entitled "The Conclusion of the Mercantile System," and a new article (art. 2, "For Facilitating Particular Branches of Commerce) in bk. V. The additions and corrections were also published separately, 4to. The fourth, in three vols. 8vo, 1786, contains no alterations, but acknowledges the debt of the author to Mr. Henry Hope of Amsterdam for the information about the bank there. The fifth (and last in the author's lifetime), 1789, 3 vols. 8vo, Strahan and Cadell, contains no alterations. Besides the above there are Dublin editions, 1785 and 1793, in 2 vols. "pirated" from the 4th and 5th editions.

(7) *The Life of David Hume, Esq., written by himself* (Strahan and Cadell, London, 1777). Adam Smith contributed to this book a "Letter to William Strahan, Esq.," dated 9th November 1776. It gives an account of Hume's last illness and a warm appreciation of his character.

(8) Letters of Adam Smith to various correspondents have been printed by Dugald Stewart, Sir John Sinclair, Hill Burton, M'Culloch, Dr. Birkbeck Hill, also in the Life of Kames, the Life of Oswald, and in the Catalogue of his library. All may be traced in Mr. Rae's biography.

(9) *Lectures on Justice, Police, Revenue, and Arms, delivered in the University of Glasgow*, reported by a student in 1763, and edited with an introduction and notes by Edwin Cannan (Clar. Press), 1896. Allusion has already been made to this volume. The contents are: Introduction. Part I., "Of Justice, including Public Jurisprudence, Domestic Law, and Private Law," pp. 1-153. Part II., "Of Police, including Cleanliness and Security, Cheapness or Plenty, Commerce and Manners," pp. 154-236, 253-259. Part III., "Of Revenue, including Taxation and [Government] Stocks," pp. 237-252. Part IV., "Of Arms, including Militias, Discipline, and Standing Armies," pp. 260-264. Part V., "Of the Laws of Nations, including War, Rights of Neutrals, Rights of Ambassadors," pp. 265-280.

Biographies begin with Dugald Stewart's (see above), which is the foundation of all the best others. The biographers include W. Smellie (1800), PLAYFAIR (1805), James Patterson (in his notes to Kay's *Edinburgh Portraits*), Brougham, M'CULLOCH, BAGEHOT, Leser (1881), J. A. Farrer (1881), Delacour (1886), Haldane (1887), Courcelle SENEUIL (1888). Professor Leser's was perhaps the most thorough in details and knowledge of sources, till Mr. John Rae's *Life of Adam Smith* (Macmillan, 1895) superseded all others. Mr. Rae's publication has no portrait. Two fresh items have been added since its appearance. The correspondence of 20th, 21st, and 22nd March 1895 in the *Scotsman* newspaper showed that Adam Smith's father married twice, and our author had a half-brother, Hugh, who was born in 1709 and died in 1750. A letter of Adam Smith to the then Duc de Rochefoucauld, dated 1st Nov. 1785, was published by Mr. Rae in the *Athenæum* of 28th Dec. 1895, and will be found in the *Economic Journal*, March 1896, pp. 165, 166.

The *Catalogue of the Library of Adam Smith*, published for the London Economic Club (Macmillan, 1894), is a *catalogue raisonné* of about 1000 books then known to be his, and about a score have been added to the list since then, the most important being Mercier de la Rivière's *L'Ordre Naturel et Essentiel*, 1767. There is a chapter on the Portraits of Adam Smith, by the late John M. Gray. The will is given, also the plan of the house at Kirkcaldy, also the facsimile of a letter. A similar facsimile was appended by J. R. M'Culloch to his *Life of Adam Smith* in its separate form (Edinburgh, 1855). M'CULLOCH's edition of the *Wealth of Nations* in its later issues contains the Tassie medallion and the full-length portrait by Kay, very fairly executed.

As to editions of Adam Smith's works, the only edition of the collected works is that of Dugald Stewart, in five volumes, published in London, 8vo, 1811-1812. It is headed, *The Works of Adam Smith, LL.D.*, and includes the *Moral Sentiments*, vol. i., 1812; the *Wealth of Nations*, vols. ii., 1812; iii., 1811; iv., 1811, with index; *Formation of Languages, Essays, Life*, as above, with the notes, appendix containing the two contributions to the *Edinburgh Review*, vol. v., 1811.

Wealth of Nations, 11th ed., edited with introduction and Life by William Playfair, 3 vols. 8vo, and footnotes, Cadell and Davies, 1805. (Obtrusively anti-Gallican).—*Wealth of Nations*, with Life, comparison with French economists and Garnier's method (see below), 3 vols. 8vo, Maynard and Zinke, London, 1811. Similar editions founded on Garnier had been printed at Edinburgh, 1806, and Glasgow, 1805.—*Wealth of Nations*, edited, with notes and additions, by D. Buchanan, 4 vols. 8vo, Edin., 1814 (see BUCHANAN).—*Wealth of Nations*, edited, with life, introduction, notes, and supplement, by J. R. M'Culloch, 4 vols., 8vo, Edinburgh, 1828. This passed through many editions, and the edition of 1863 in one thick volume 8vo is the one cited throughout this article. *Wealth of Nations*, with Life, comparison with French economists, etc., from the French of G. GARNIER, edited by Edward Gibbon WAKEFIELD, 4 vols. 12mo, London, 1835-39.—*Wealth of Nations*, edited by J. E. Thorold Rogers, 2 vols. 8vo, Clar. Press, 1869.—*Wealth of Nations*, with introductory essay, and notes, by Prof. J. S. Nicholson, 1 vol. 8vo, Nelson, Lond. and Edin., 1884. The text was set up from the types of the edition of Thos. Nelson and Peter Brown, Edin. Univ. Press, 1829. The special value of the book is in its new introduction and notes. Joyce (Jeremiah) published *A Complete Analysis or Abridgement*, Cambridge, 1797, small 8vo, which passed through several editions. The 3rd (London, 1821) supplements Joyce's own analysis by Garnier's. Mr. W. P. Emerton's *Analysis of the First Two Books* (Oxford, Thornton, 1877) is founded on Joyce and Garnier, with notes based on ROGERS, FAWCETT, and other later authorities. Selected chapters from the *Wealth of Nations* are given in Professor Ashley's *Adam Smith*, "Economic Classics," Macmillan, New York, 1895.

An Analysis of the Moral Sentiments is given by J. A. Farrer (English Philosophers Series, Sampson Low, 1881). The first translation of the *Moral Sentiments* into French appeared in 1764 in 2 vols. 12mo, under the curious alternative title, *Métaphysique de l'Ame*, by E. Dous; a better by Abbé Blavet in 2 vols. 12mo, 1774, and still better by la Marquise Condorcet, 1798, 2 vols. 8vo. It was translated into German, 1 vol. 8vo, Brunswick, 1770, and by Kosegarten, Leipzig, 1791.

The *Wealth of Nations* was translated by Blavet piecemeal for the *Journal de l'Agriculture* of Ameilhon, 1779 and 1780, and then published in 6 vols. 12mo at Yverdun, and 3 vols. in Paris, 1781. Another translation, by the poet Roucher, not, as he had hoped, assisted by Condorcet, 3 vols. 8vo, 1790. But the translation of Count Germain GARNIER superseded its rivals. It was published in 5 vols. 8vo, Paris, 1802. It has a Life and a portrait from the Tassie medallion, reversed. The 1st volume contains a long preface, including Garnier's famous *Method for facilitating the Study of the Wealth of Nations*. He regards the main doctrine of Adam Smith as all contained in the first two books; the rest can be read separately for illustration. He then divides the subject of the two books into three parts: (1) Value, including price, wages, profit, and rent; (2) stock, including fixed and circulating capital; (3) production and distribution of wealth, including division of labour, employments of capital, exchange. Garnier's last volume (v.) consists entirely of notes and index. In 1843-44 Garnier's translation was republished in 2 vols. 8vo with *variorum* notes from Blanqui (the editor), Buchanan, M'Culloch, Malthus, Ricardo, Mill, Sismondi, and Say. There was a new portrait. For more details see the French *Dict. de l'Ec. Pol.*

The first German translation appeared anonymously in 1776-78—vol. i. 1776, vol. ii. 1778 (Leipzig, Weidmann). It is ascribed to J. F. Schiller, who is not to be identified with the poet. (Prof. Cohn calls him a German living in London, *Nat. Oek. Grundlegung*, 1885, p. 110.) The first German review seems to have been in the *Göttingische gelehrte Anzeigen*, 10th March and 5th April 1777 (Roscher, *Nat. Oek. in D.*, p. 599). There was a translation by the philosopher GARVE and the official Dörrien in 3 volumes, 1794, which reached a 3rd edition in 1810, Roscher, *ib.* 603; by MAX STIRNER in 1846-47; and, finally, by C. W. Asher, under the title *Ueber die Quellen des Volkswohlstandes*, Stuttgart, in 1861.

The *Essays* were translated into French by P. Prévost of Geneva, 2 vols., Paris, 1797. Mr. Rae tells us, ch. xxiv., that a Danish translation of the *Wealth of Nations* by Dræbye appeared in 1779-80, an Italian in 1780, and a Spanish by J. A. ORTIZ in 1794, after the book had been suppressed by the Inquisition for "the lowness of its style and the looseness of its morals."

Germany has made amends for a late recognition of Adam Smith by publishing more monographs on him than any other nation. In England he has had a place in almost every treatise on political economy in the century, but monographs have been fewer, even if we include articles in reviews (as BAGEHOT'S and CLIFFE LESLIE'S). The Dutch monograph by J. F. B. Baert, *Adam Smith and his Inquiry into the Wealth of Nations*, Leyden, 1858, must be mentioned. Professor Rösler's *Grundlehren der von Ad. Smith begründeten Volkswirthschaftstheorie*, Erlangen, 1868, contains the paradox that what Adam Smith calls in one place division of labour he calls in another capital. Professor Leser has treated of the *Notion of Wealth in Adam Smith* (1874), and Professor Oncken of *Adam Smith in der Culturgeschichte*, Wien, 1874; and in "Das Adam Smith-Problem," *Zeitschrift für Sozialwissenschaft*, I. Band, 4 Heft, Berlin, 1898: Professor Inama Sternegg, of his *Bedeutung für die mod. Natiök.*, 1876. Professor Oncken, in his *Adam Smith und Immanuel Kant* (1877), tries to make us believe in a close kinship between the two philosophers. Perhaps the best of recent books of the kind are those of Dr. R. Zeyss, *Ad. Smith und der Eigennutz*, Tübingen, 1889, and Prof. W. Hasbach, *Die allgemeinen philosophischen Grundlagen*; of Quesnay's and Adam Smith's political economy (1890); and *Untersuchungen über Adam Smith* (1891). Both writers embrace the philosophy as well as the economics, as is done on a smaller scale in Bonar's *Philosophy and Pol. Ec.* (1893). Dr. Zeyss disposes *inter alia* of the notion of Skarzynski, *Ad. Smith als Moral Philosoph*, 1878, that Adam Smith's philosophical views were completely changed by his French journey. Adam Smith's relations to Quesnay are fully discussed by Hasbach, and to Turgot by Dr. S. Feilbogen, *Smith und Turgot* (Wien, 1892).

For general estimates of Adam Smith's economics, see Mr. L. L. Price's *Political Economy in England*, London, Methuen, 1891, chapter i., and his *Economic Science and Practice*, Essay XII. on "Adam Smith and his relations to recent Economics," London, Methuen, 1896.

For an estimate of his views on taxation, see Prof. Bastable's *Public Finance* (1892) throughout, where amongst other things there is noted the remarkable omission of the poor rate in connection with taxation (p. 81), perhaps due to the absence of a Poor Law in Scotland. Mr. Edwin Cannan, *History of Theories of Production and Distribution, 1776-1848* (1893), gives a full discussion of Adam Smith.—Buckle, *Civilis.*, i. 195 n., has chronicled the occasions on which Adam Smith was mentioned in parliament during the first seventeen years after publication of the *Wealth of Nations*. The first was in 1783.—Toynbee, *Industrial Revolution*, ch. vii., 1884, considers Adam Smith's relation to the mercantilists. For estimates of the *Moral Sentiments*, it will be sufficient to refer to Mackintosh's *Dissertation on Ethical Philosophy*, and Mr. Leslie Stephen's *English Thought in the Eighteenth Century*, vol. ii. J. B.

SMITH, CHARLES (1713-77), a wealthy owner of corn-mills chiefly in Essex, wrote—

A Short Essay on the Corn Trade and the Corn Laws (1758), and *Considerations on the laws relating to the Importation and Exportation of Grain*, and *A Collection of Papers relative to the Price, Exportation, and Importation of Corn*, both published 1766 and called "second edition." The whole was republished in 1804, *plus* notes by Catherwood and extracts from Chalmers's *Estimate*, etc. C. Smith's list of corn prices (1595-1765) (ed. 1804, p. 123) was taken from the Eton audit books either directly or through Bishop FLEETWOOD (*Chronicon Preciosum* (1707), pp. 125-130), and was utilised by A. YOUNG (*Farmer's Letters* (1767), pp. 40, 48), Combrune (*Inquiry* (1768), pp. 36, 37), and others, until Thorold ROGERS did the same work on a far larger scale in his *History of Agriculture and Prices* (1887), vol. v. pp. 170 *et seq.*; official figures began only in 1771. A. SMITH who speaks highly of C. Smith's work refers also to the obvious fallacy of his and A. Young's approval of the export bounties levied since 1688 on corn because they cheapened corn (*Wealth of Nations*, ed. M'Culloch, p. 224). Although he wrote, "Quantity alone can frustrate all attempts to ingross or forestall," so that if crops are good "no art can inhance the price of grain," if bad, "no art or regulation of government will keep the prices low" (p. 92), C. Smith praised the "discreet" use of assizes of bread, corn duties, and corn bounties. J. D. R.

SMITH, EDOUARD (1789-1852), director of statistics in the Belgian ministry of the interior, wrote:—

Statistique Nationale, Développement des trente et un tableaux publiés par la Commission de Statistique et relatifs aux mouvements de la population dans les Pays Bas depuis la création du royaume jusqu'en 1824 (Brussels, 1827).—*Statistique des Pays Bas publiée au nom de la Commission Royale* (Brussels, 1827-1829).—*Recherches sur la reproduction et la mortalité de l'homme aux différents âges et sur la population de la Belgique* (1832).—*Statistique criminelle de la Belgique* (1832), and *Recherches statistiques sur la Belgique faites au nom du Ministère de l'Intérieur* (1836). E. Ca.

SMITH, ERASMUS PESCHINE (1814-1882), studied in Columbia College, New York, and in Harvard Law School, was an editor in Rochester, N.Y., and for two years professor of mathematics in the university of Rochester. He resigned this position to be superintendent of public instruction for the state of New York (1852), and was subsequently reporter of the court of appeals

of the same state. He served the national government as commissioner of immigration and as examiner of claims. In 1871 he went to Japan as special adviser to the Mikado in international law, serving for five years as a sort of foreign secretary, during which time treaties were negotiated and better relations established with several European countries. While in this position he was instrumental in breaking up the Chinese coolie trade.

His *Manual of Political Economy* (New York, 1853) was translated into French by Camille Baquet in the year after its publication. He is a close disciple of Henry C. CAREY (*q.v.*), expressly waiving in his preface any claims of originality as against him. The book deserves attention, however, for its emphasis of the physical conditions of production and its analysis of the methods by which soils are produced. His definition of the object of political economy is quite in the spirit of Carey: To investigate the laws which explain man's attainment, through association, of enlarged power over matter in all its forms, and the development of his intellectual and moral faculties, in virtue of that power. E. T. D.

SMITH, HENRY (1550–*d.* about 1592), lecturer at St. Clement Dane's.

Was the author of the *Examination of Usurie* (two sermons appended to the *Preparative to Marriage*), 1591. In these the condemnation of usury, elaborately founded on scripture, is extended not only to loans to the poor and needy, but to money lent at interest in business, on the ground that lenders expect to share in gains but not in losses. The inference that to a lender who consented to take his part in losses interest might reasonably be paid, is prevented by a later passage where the preacher forbids the borrowing of capital, first because people should not wish to be richer than their own means can make them — an empty maxim—and secondly because prices must rise if interest as well as profit is to come out of them. The relation between profit and interest is not clearly seen; through Jewish practices the word "usury" had gained an ill reputation, and the innocent thing was prejudiced by its name (see CANON LAW; INTEREST AND USURY).

[Wood, *Athenæ Oxonienses*, vol. i. with discussion on date of death.—Fuller, *Church Hist.*—Chalmers, *Biographical Dictionary*.—Cunningham, *Industry and Commerce, Modern Times*, pp. 79-82.]

E. G. P.

SMITH, JOHN. A London merchant:

Was the author of the *Trade and Fishing of Great Britain displayed*, 1661, and of *England's Improvement Reviv'd*, 1673 (written and intended to be published a few years earlier). The former describes a journey round the north and west of Scotland, with the object of investigating native and Dutch methods of fishing, and includes an account of the Orkney and Shetland Islands, and proposals for so conducting the fishing as to oust the Dutch; a slight historical sketch is added of the successive control of trade by the "Venetians, Genoese, Portingals, EASTERLINGS, or HANSE TOWNS, Hollanders, and English." When he wrote this, Smith was apprenticed to "Mr. Matthew Cradoch of London, merchant, one of the society for the fishing trade of Great Britain."

His other work was written to encourage timber-growing. After pointing out the damage done by careless and wasteful felling of trees, without replanting, especially on royal lands for the navy, the writer gives full directions for the planting and cultivation of different trees, with accounts of their special uses, and calculations of cost according to the spaces to be left between them. The tract on fishing was incorporated as the sixth book of this work.

[Preface to *England's Improvement Reviv'd.*]

E. G. P.

SMITH, JOHN (18th century)—

Was the compiler of a highly valuable work on the wool-trade, entitled *Chronicon Rusticum-Commerciale, or Memoirs of Wool, etc.; being a collection of History and Argument concerning the woollen manufacture and woollen trade in general, particularly the rise, progress, improvements, declensions, revolutions, and the respective causes thereof in England; as also an account of the several laws from time to time made and of many schemes offered for preventing the exportation of raw wool, with occasional notes, dissertations, and reflections upon the whole*, London, 1747, 2 vols. 8vo; 2nd ed., 1756-57, 2 vols. 4to—a most careful and detailed account of the incidents and references relating to the woollen and cloth trade from the earliest mention of wool until the middle of the 18th century. He quotes from the parliamentary petitions, statutes, patent and other rolls, of each reign, and inserts all the available contemporary literature of each period bearing upon the subject. In this way he prints[1] "W.S.'s" *Compendium or brief examination of certain ordinary Complaints of divers of our Countrymen in these our Days* (ch. xxiii.); *A Treatise of Commerce*, or a brief history of the merchant adventurers, by John Wheeler, secretary to that society (ch. xxv.); John May's *Declaration of the state of clothing now used within this realm of England;* also the writings of MISSELDEN, MALYNES, and (ch. xlvii.) Sir Josiah CHILD'S *New Discourse of Trade*. He continues to embody in his work the writings of many small economic writers of each period, and with whose works it is not otherwise easy to become acquainted. He strongly urges a duty on wool as the principal means of restraining its being exported raw, on the grounds that "an absolute prohibition hath never yet had the effect that was genuinely intended by it." The writer of these "Memoirs" was immediately attacked by a Mr. Temple, who, as Smith himself summed up, charged him upon the four following points:—(1) that Mr. Smith had made that the price of the best English wool which was very far from being so; (2) that he had treated the wools of Cotswold as the *finest* clothing wools of England, which they are not; (3) that the best Spanish wools were not at Amsterdam in 1719 of the price mentioned (Mem. ch. 172); (4) that most of the Spanish wools are of a lower price than the lowest there mentioned; (5) that the author has shown great ignorance in making any comparison between the

[1] See also WILLIAM STAFFORD.

price of English wool, as sold from the farmers in England, and Spanish, as well as obtained for wools at the market of Amsterdam.

All these objections Smith replied to in a volume entitled *The Case of the English Farmer and his Landlord in answer to Mr. Temple's pretended Refutation of one of the Principal Arguments in Memoirs of Wool*, London, 1750 (†), 8vo.—Smith also published *A Review of the Manufacturers' Complaints against the Wool Grower*, pt. i. *Wherein of Pitch and Tar Marks, the Excess, the Injury, and their respective Remedies, are considered minutely*, London, 1753, 8vo.

The dearness of wool, said the Manufacturers' Petition, tended to cause the farmers to increase the weight of their wool by excessive pitching and tarring. Also they complained of false and deceitful winding. Smith defended the growers by disputing the charge of over-marking; and proposes as a remedy to reduce the necessary brandings and to limit their size, and to prohibit the use of tar or pitch in other markings made by the owner. A. L.

SMITH, JOSHUA TOULMIN (1816-1869), was an ardent writer on local self-government and its history.

The best known of his many works is *The Parish: its Obligations and Powers* (1854, 2nd ed. 1857). Besides this, he made the collection of returns from *English Gilds*, afterwards published under that title by the Early English Text Society (1870). These furnished for some years the only, as they do still the chief printed material for the history of the "social-religious" fraternities of England during the middle ages. *Local Self-government and Centralisation, the characteristics of each, and its Practical Tendencies as affecting Social, Moral, and Political Welfare and Progress.* London, 1851, 8vo, pp. 408. This treatise states the broad permanent principles of the English constitution, and their historic application to great questions of law and economics, with some contrasted infringements. W. J. A.

SMITH, PRINCE. See PRINCE-SMITH.

SMITH, SIR THOMAS (1514 or 1515-1577), was born at Saffron Walden and educated at Cambridge, where he became regius professor of civil law; he was employed under Edward VI. and Elizabeth as ambassador and secretary of state. He was one of the most active movers in the Elizabethan attempt to colonise Ulster.

His chief literary work was *The Commonwealth of England*, an imitation in the first part of Aristotle's *Politics*, and a description, historically interesting, of English ranks and classes, and of the English constitution and law courts, with a view to the comparison of our common law with the civil law used by continental nations. The book, though it is not remarkable as a literary or philosophical work, is valuable as comprising a considerable number of important details concerning legal procedure and social distinctions—the clear line which could be drawn then between the classes of esquires, yeomen, and farmers, etc., in contrast to our present looseness of class, is particularly to be noticed (Strype's *Live*, ed. 1820, p. 85, note).

Sir Thomas Smith also wrote elaborate tables of money, especially as a guide to the calculation of Roman money in English denominations; they are printed at the end of the *Life*.

[Strype, *Life of Sir Thomas Smith.*—Wright, *Queen Elizabeth and her Times*, contains much of Smith's correspondence with Lord Burleigh.] E. G. P.

SNELLING, THOMAS (1712-1773), a Fleet Street bookseller and coin-dealer, wrote:—

(1) *A View of the* (*a*) *Silver* (1762), (*b*) *Gold*. (1763), and (*c*) *Copper* (1766) *Coin and Coinage of England* from (*a*) William I., (*b*) Henry III., and (*c*) Elizabeth respectively, down to George II., with copper-plate engravings and historical and critical notes. The plan had been devised by the Society of Antiquaries, whose members—S. M. LEAKE and Martin FOLKES—had carried it out, but far less accurately and completely than Snelling. His (2) *View of the Origin, Nature, and Use of Jettons* (1769); (3) *Miscellaneous Views of the Coins struck by English Princes in France*, etc., *by the East India Company West India Colonies*, etc. (1769), and (4) *Supplement to Mr. Simon's Essay on Irish Coins* (after 1769) throw light (amongst other things) on the connection of coinage, traders' tokens (which perhaps an ancestor of his coined; Boyne, *Trade Tokens of the Seventeenth Century*, ed. Williamson (1889), p. 704) or promissory notes, and municipal charities, and are still authoritative (*Antiquary* (1873), pp. 8, 165, 309); (5) His *View of the Silver Coin and Coinage of Scotland* (1774) shows that he had begun to do for Scotland what he did for England, and displays critical sagacity of a very high order (E. Burns, *Coinage of Scotland* (1887), i. 98, 99; ii. 113). His (6) *View of the Coins at this time current throughout Europe* (1766), and (7) *Doctrine of Gold and Silver Computations* (1766) are less important. He also published engravings of (8) *Seventy-Two Plates* (1757) (prepared in 1652—*Numismatic Chronicle*, 2nd ser., xiv. 159; Ducarel, *Anglo-Gallic Coins* (1757) p. 3); (9) *Five Plates of Gold Coins*, etc., *of Scotland*—an appendix to (5) and (10); *Thirty-Three Plates of English Medals* (1776). Some of his plates for (1) had strayed into Ducarel's book, and into *Twelve Plates of English Silver Coin printed for Withy and Ryall* (1756); and most of his plates were prepared by F. Perry, J. Lodge, C. Hall, and others; but whatever was "printed for Snelling," though coarse when judged by modern standards, is still invaluable.

[Ruding, *Annals*, 3rd ed. (1841), p. x.; R. W. Cochran-Patrick, *Records of the Coinage of Scotland* (1876), pp. 6, 7; E. Hawkins, *Silver Coins of England*, ed. Kenyon (1887), pp. 3, 4.] J. D. R.

SOCAGE. The chief free tenures in mediæval England were tenure by KNIGHT'S SERVICE, tenure in SERJEANTY, FRANKALMOIGN, and socage. Socage has been defined as the great residual term, which includes all free tenures not included under the other heads. Thus there is great variety as to the conditions of socage tenants—some hold on condition of almost nominal service, some on payment of a

money rent, and some on condition of agricultural services not very different in kind from those of the VILLEIN. In early times land held in socage was divisible among sons, but the custom of PRIMOGENITURE gradually became the rule, except in Kent and other districts where special customs, such as GAVELKIND, prevailed. Socage tenants were always exempt from compulsory military service, and though they paid AID and RELIEF, they were free from the burdensome incidents of wardship and marriage. The guardian in socage was the next of kin who could not inherit. The act of Charles II. (1660) abolishing feudal rights made socage tenure practically universal.

[Pollock and Maitland, *Hist. of English Law.*—Digby, *Hist. of the Law of Real Property.*] R. L.

SOCIAL CONTRACT AND SOCIAL SCIENCE.

Social Contract, p. 427; Social Science, p. 428; Social Science (Sociology), p. 430.

SOCIAL CONTRACT, THE. The doctrine of the social contract may be described as the doctrine that every state owes its existence and constitution to the free and deliberate agreement of its original members, and that its present members by continuing within it are presumed to acquiesce voluntarily in its authority by reason of receiving its advantages. It thus involves the assumption of a state of nature and a law of nature antecedent to civil society and to civil law. The date of its origin is difficult to fix, for the theory that society has its origin in convention is as old as the Greek sophists, and has been in vogue at intervals ever since. It is easier to fix the time at which the doctrine of the social contract had most influence. With the decline of mediæval beliefs men felt the necessity of some justification for the authority of the state, apart from theological arguments or ideas of feudal tenure. Science was still so little advanced that hardly any one thought of asking how the state has actually arisen. The notion of an original compact became popular in the 17th and 18th centuries. The three most celebrated exponents of this notion are HOBBES, LOCKE, and ROUSSEAU.

Hobbes's conception of the social contract is set forth in his *Leviathan* (1651). As he had been profoundly impressed with the miseries of civil discord in England, he sought to found on the social contract a system of absolute government. He assumed an original state of nature in which man was subject only to the natural law of self-preservation, and was therefore justified in taking every advantage of his fellow-creatures. Such a state of nature was necessarily a state of universal war, and whilst it lasted the life of man was "solitary, poor, nasty, brutish, and short." The same law of self-preservation constrained men to seek for an escape from this wretched condition. Therefore they came together and entered into a covenant, every man with every other, whereby each resigned all his natural rights into the hands of a particular person or body of persons, on condition that every one else did the same. Thus they created a sovereign who was not indeed a party to the social contract, but who derived from it an absolute authority which could not be revoked, because the members of society had reserved no rights to themselves. The sovereign was subject neither to legal nor to moral restraint, and political liberty meant merely liberty to do that which the sovereign had not forbidden.

Locke, in his *Treatise on Civil Government* (1690), gave a new complexion to the theory of the social contract. According to Locke the state of nature was one of freedom and equality. Whilst in that state men were subject to the law of nature which restrained their rights over their own or their neighbours' life and property. Thus the state of nature was not necessarily a state of war or of misery. It was, however, a state of insecurity, as there was no impartial and irresistible arbiter to protect each individual in the enjoyment of his rights. Therefore men agreed to form a society and to resign to a ruling authority so much of their natural rights as was necessary for this purpose. They could not invest their governors with unlimited rights over life and property, for they had not possessed such rights themselves. Nor could they be supposed to resign more of their natural rights than they were obliged to do, in order to secure the benefits of civil society. Therefore the sovereign could not claim more than a limited authority, and if he betrayed his trust, he might lawfully be deposed. In this way constitutional government was made to appear the logical corollary of the social contract.

Rousseau published his famous book on the social contract in 1762. In this work he combines some elements derived from Hobbes, with other elements derived from Locke. He seeks to harmonise the absolute authority of the sovereign with the absolute freedom of the citizen. The aim of the social contract, he taught, was "to find a form of association which may defend and protect, with the whole force of the community, the person and property of every associate, and by means of which, each coalescing with all, may nevertheless obey only himself and remain as free as before." Like Hobbes, Rousseau held that, by the social pact, each individual surrendered the whole of his natural rights. But, unlike Hobbes, he held that the community formed by this pact necessarily remained sovereign. Sovereignty being inalienable and indivisible, the "prince," *i.e.* the government, could only be a subordinate authority. The "prince" wielded the executive power, but the legislative power always remained with the people, and when the people assembled they resumed plenary authority, and

the "prince" was suspended from his functions. With ingenious sophistry, Rousseau tries to prove that this absolute power of the body means the absolute freedom of its members, so that when an individual suffers death in virtue of a law enacted by the people, he is really a consenting party to his own execution, and if he thinks otherwise, is not thinking clearly. It will be clear, from what has been said, that each writer will deduce from the hypothesis of a social contract the legitimacy of that form of government which he thinks most beneficial. The hypothesis rests on a sharp distinction between the state of nature and the social state, between the law of nature and the civil law. But these distinctions have no basis in history. From the first, men lived in rudimentary associations, and these passed by gradual development into what we call political society. How the state has arisen is a purely historical question which must be solved by the collection and interpretation of historical evidence. No genuine instance of a social contract has been found, nor, if found, would it support inferences like those drawn by Hobbes, Locke, or Rousseau. That savages could foresee the political needs of later generations, or bind those generations by their covenant, has been proved absurd by anthropology. Nevertheless, the theory of the social contract contains in mythical form a serious truth. Government cannot be justified simply on grounds of force, of tradition or even of instinct. It can be justified only on the ground that it conduces to the good of the governed. It is most powerful when it has their conscious approval. In this sense it is true that the consent of the governed is the basis of government. The theory of the social contract had the merit of contradicting the theories which based government on divine right, on patriarchal right, or on proprietary right. It was an instrument of intellectual and social revolution, not a scientific summary of historical fact.

[Hobbes, *Leviathan* and *De Cive.*—Locke, *Civil Government.*—Rousseau, *Contrat Social.*—Hume, *Essays.*—Green, *Theory of Political Obligation.*—Ritchie, *Natural Rights.*—Pollock, *History of the Science of Politics.*—Bluntschli, *Theory of the State.*] F. C. M.

SOCIAL SCIENCE. Social science is a new word for the old Greek science of politics—which included every kind of human association. But the old point of view had been shifted and enriched by mediæval writers, who looked more at the spirit which created than at the thing created, and whenever the social sense wove some spiritual texture, or struck some unintended harmony, their first impulse was to contrast it with the state; and they believed in universal history: "The entire succession of men," wrote Pascal, "must be regarded as one man always living and incessantly learning." That is why TURGOT and HEGEL took for their theme "l'esprit humain," or "Volksgeist," and rang on it subtler and more various changes than ARISTOTLE dreamt of. And the results of Greek thought had been so clean forgotten that VICO (1725) called his science—founded on the axiom that man is social—"a new science," "the philosophy of humanity," etc.; and DUPONT (1768) attributed the "discovery" that "natural" meant "social" law, to GOURNAY and QUESNAY (1755), and this too was called "a new science"—"la science sociale et économique," etc. (*Ephémérides d'un citoyen*, 1767). After J. B. SAY (1803)—much to Dupont's regret (1815)—sacrificed social to economic science, FOURIER (1808) invented "a new science"—"la science sociale," and disciples of Cabanis, like DESTUTT de Tracy (1824), and of ST. SIMON counterclaimed for the title. Then A. COMTE (1830-42), the last European inventor of "a new science," took the name sociology—partly in order to distinguish the constructive views of the 19th from the individualism of the 18th century. But this was also St. Simon's aim; nor has the aim been reached; thus to-day Ferri's nationalised industries, Schäffle and Siciliani's autonomous industrial groups, S. P. Andrew's and H. Spencer's *laissez-faire*, Fouillée's compromise, and Lilienfeld's (iv. 386) reconciliation of these opposing schools, are all claimed as offshoots of this same stock. Comte also rebelled against the watery, non-national, levelling doctrines of men like CONDORCET, and looked towards a federation of the leading races of the world; but St. Simon, Kant (1784), whom Comte had read, and Vico, had already found salvation in this idea. As Comte put forth three stages of progress as the first-fruits of his new science, so had BODIN (1580) and Vico; and Vico's first stage was theological, and his third scientific; Turgot characterised the second stage as one where men substituted abstract essences for causes (Say et Chaillet, *Dict. de l'Économie Politique*, *s.v.* "Sociologie"); and St. Simon named the second the critical or metaphysical, and, following a hint of Burdin (1797), the third the positive or reconstructive stage (*Œuvres Choisies*, i. 198; ii. 20). The truth is that there was no new science, but only the old Greek science draped by the middle ages, and the discovery by modern writers of the nude beneath the drapery upset their minds. Vico stood between the mediæval and modern world; after him the way parted in three directions.

(1) The first was towards a philosophy of history. Hegel's *Philosophy of History* (1825) is a sequel to his *Philosophy of Right* (1821). The latter criticises associations from the successive points of view of a Roman lawyer, a French economist, and a Greek philosopher. In the former he looks at history metaphysically as the externalisation of

spirit, and also historically, but through a telescope. Every historian feels himself in contact with "secret living impulses" (v. Ranke), which are half empiric laws, half aspirations grounded on self-knowledge; and Hegel's generalisation that consciousness of freedom (De TOCQUEVILLE'S (1835) "Democracy") passes down the ages in ever-widening circles is an effort to see what the philosophic historian feels; and so far only, Hegel tells us, history accords with what other scientific processes might lead us to expect. The philosopher, therefore, does not follow history any farther than this. True, this is only a vague rough outline, which historians must fill in with the aid of their microscopes; and even they desist from details the moment that their sympathies wane. But it has the merit of being a bridge which leads straight on from science to history, and so to real life. As Schlözer's *Vorstellung einer Universal Historie* (1772) was the prelude to his *Welt-Geschichte* (1785) so (as Bernheim tells us) v. Ranke's *Welt-Geschichte* (1881) took up the thread where Hegel dropped it. And history itself only reaches up to real life a little farther than scientific knowledge; so that philosophies of history mark the dividing line where science gradually fades away and loses itself like a dream in the waking world.

(2) The extreme sociologists start from the opposite point of the compass. As the physiocrats made natural science, so, since Cabanis (1795), biologists have made biology reach down to human life, as though there were some law of the outer which would unlock every secret of the inner world. Thus St. Simon and Comte wished to explain the social sense as a force like gravitation; yet Fourier and Fouillée were surely wiser in writing of gravitation as a sort of social sense, for "we come nearer to a real knowledge of the causes" in the case of "the working of an intelligent will," than in the case of "an unexplained force" (E. A. Freeman, *Methods of Historical Study*, p. 154), and St. Simon and Comte therefore explained "ignotum per ignotius." Again, H. Spencer's law of progress as progress towards definite and orderly variety is admirable but for his genitive cases—the "integration of *matter*," and "dissipation of *motion*," which may suit the stars but do not suit human life. Even he holds that human beings are under the yoke of physical laws. Again, Spencer, Lilienfeld, Schäffle, De Greef, and Worms, define society as "a discrete organism," or "superorganism," and Giddings as "an organism with duplicate functions," *i.e.* potential and actual institutions. Yet organism applied to humanity is only a metaphor which they, like Plato, have a perfect right to work out each in his own way, but which, if pressed, misleads. Much of what goes to make society, some fraction even of its language, folk lore, and common law, is deliberate invention, and might more justly be compared to mechanism than to organism; and the residue—"wisdom without reflection," as Burke called it—grew partly by the influence of mind on mind (Bagehot, Durkheim, Tarde), partly by other motives which may act like, but are not an organ. And if they were an organ—no one understands why organs work together, every one partly understands why he and his class contribute to the well-being of a society; for in the first case he attacks the problem from outside and sees it through a glass darkly; in the second case he attacks it from within, and what he knows he knows at first hand. The metaphor of organism leads us into a blind alley, somewhat farther from the truth than the point from which we started. Again, efforts to make "survival of the fittest" a central social principle have failed, for nations struggle in a way that single men do not, and even with nations "consciousness of kind" tempers the wind to the shorn lamb (Gumplovicz, Novicov, Huxely, Vaccaro, Giddings, among others); indeed Brentano in that passage in which he declared his method identical with COMTE'S method traced competition and union—with a view to extinguish competition—to one and the same cause, namely, industrial changes in a free state (*Arbeitergilden* (1871), ii. 310); moreover, the whispers of individual consciences produce social effects of great moment, thus a good poor law softens natural with what Ritchie calls moral selection, and MALTHUS knew the moral and immoral checks to births. Again Comte, and perhaps H. Spencer (ch. xxvii.), made sociology into history, while BUCKLE made history into sociology. Now science has only to do with types and typical relations; it selects them from the real world, and discovers laws which are immutable only because conflicting units or relations are left out. But Comte and Buckle, ignoring what they omitted, transferred laws and prophecies about sociological man—a type to which no one ever quite conformed—to real men. The method of regarding one's units as "quantities" and therefore "*négligeables*"—which, by the way, science has not yet justified in the case of organisms—is the only possible method with external nature, of whose units we can know nothing; but in human sciences it must only be followed provisionally and for a purpose, for there the scientist is, and therefore must know the unit. Or the matter may be put thus: these writers forget that life consists of an action and reaction between individuals and society; but for society individuals are phantoms; but for individuals society is a shadow, therefore social laws apply literally to shadowland alone; they can only be applied to the inexplicable sea of human life—every wave of which is unlike its fellow—with modifications suited to each case.

(3) Social science is also regarded as a science which selects its material, and therefore its results only hold good of one aspect of life. If so it is just like political economy and the other special social sciences; and the only wonder is that they have done so much and it so little; so that it seems, as A. Clément and Letourneau virtually admit, but a mosaic composed of them. True, Mill claimed Malthus as a sociologist; but that was not Malthus's view, and the best writers in English on those questions which natural selection has suggested—Bagehot and Ritchie—call their subject-matter politics. Again, Maine was perhaps encroaching on sociology when he wrote that society goes from status to contract; and De Greef supports and Durkheim combats this "sociological" view. Again, social philosophy figures

along with political economy on the title page of the book always cited as Mill's political economy, Pulszky brackets the theory of law and civil society (1887), G. Mayr statistics and social theory (1897), and so on. Why then, if social science has a legitimate sphere of its own, have the special social sciences invariably encroached upon this sphere? The reason must be sought in the peculiar character of those sciences which deal with human nature. A common-sense summary of every human problem is dimly present to every one's consciousness; hence, if an inquirer who has with the artificial aids of science investigated some part of human nature—wealth, language, etc.—ends off with his scientific results, there is a conflict between these results and his instinctive common sense; it is as though he ended with a discord. The nature of his task urges him to look across the gap between what his science supplies and his common sense demands. And the same reason causes not only the special social sciences but social science itself to overflow its banks; thus, for instance, a healthy mind cannot long keep its ideals out of its ideas about society. Mill and Maine ought really to have trespassed further afield in order to probe the soil in which their sciences were rooted. Not only the social and political sciences — as Schmoller and the New York Society of that name call them—but all branches of "moral and political science" —to use Hume's name, and the name of the modern French Académie—hang in a cluster; their subject-matter, if divided for a moment, must be reunited. Division and reunion is the only means by which we advance our knowledge of human nature. L. v. Ranke wrote of social scientists, "they embrace not Juno but a cloud, and turn vendors not of truth but of formulæ and empty wind"; but formulæ are often valuable half truths, and the wind (though not solid) is not empty. Science cannot be a substitute for, but it may be the utmost help to history, and to a keen perception of the concrete facts of life.

[Criticisms on sociology: (1) Philosophical, W. Dilthey, *Einleitung in die Geisteswissenschaften* (1883) (classes philosophies of history with sociology).—C. Menger, *Untersuchungen über die Methode der Socialwissenschaften* (1883).—J. S. Mill, *Logic*, bk. vi. (2) Historical, E. A. Freeman, *Methods of Historical Study* (1886) (identifies politics and history).—W. E. H. Lecky, *Political Value of History* (1892).—L. v. Ranke, *Werke*, bd. xxiv. p. 280. (3) Both, E. Bernheim, *Geschichts-Forschung* (1880); *Lehrbuch der Historischen Methode* (1889). (4) Political science, Sir G. C. Lewis, *Methods of . . . Politics* (1852), p. 51, etc. —Sir J. Seeley, *Political Science* (1896), p. 25, 142, etc.—H. v. Treitschke, *Die Gesellschafts-wissenschaft* (1859).

Recent writings which express sociological views and belong at least partly to the third type are:—*American Journal of Social Science* (1869, etc.); *American Journal of Sociology* (1895, etc.).—*Annales de l'Institut international de Sociologie* (1894).—S. P. Andrews, *Science of Society* (1851). —W. Bagehot, *Physics and Politics* (1872).—J. Bascom, *Sociology* (1887).—T. Braga, *Systema di Sociologia* (1884).—H. Carey, *Social Science* (1877). —A. Clément, *Essai sur la Science Sociale* (1867).—J. Courcelle-Seneuil, *Études sur la Science Sociale* (1862).—P. Delbert, *Social Evolution* (1891).—A. Dulk, *Entwurf einer Gesellschaftslehre* (1889). —E. Durkheim, *Cours de Science Sociale* (1888); *Les Règles de la Méthode Sociologique* (1895).—A. Espinas, *Des Sociétés animales* (1877).—E. Ferri, *Socialismo e Scienza positiva* (1894).—A. Fouillée, *La Science Sociale Contemporaine* (1880); *Le mouvement positiviste et la conception sociologique* (1896).—F. H. Giddings, *Principles of Sociology* (1896).—G. de Greef, *Introduction à la Sociologie* (1886).—M. L. Gumplovicz, *Der Rassenkampf* (1883); *Sociologie und Politik* (1892).—G. Hauriou, *La Science sociale traditionnelle.*—T. H. Huxley, *The Struggle for Existence* (1888); *Nineteenth Century*, xxiii. 161.—Combes de Lestrade, *Eléments de Sociologie* (1889).—C. J. M. Letourneau, *La Sociologie d'après l'Ethnographie*, 3rd ed. (1892).—P. v. Lilienfeld, *Gedanken über die Sozialwissenschaft der Zukunft* (1873).—J. S. Mackenzie, *Introduction to Social Philosophy* (1895).—J. M'Clelland, *Social Science and Social Schemes* (1894).—A. Majorana, *Teoria Sociologica della Costituzione politica*, 2nd ed. (1894).—J. Novicou, *Les luttes entre sociétés humaines* (1893); *Les gaspillages des sociétés modernes* (1894); *Conscience et Volonté Sociales* (1897); *Revue internationale de Sociologie* (1893, etc.).—D. G. Ritchie, *Darwinism and Politics* (1889); *Rivista Italiana di Sociologia*, 1897.—E. de Roberty, *La Sociologie* (1881).—A. Rondelet, *Philosophie des Sciences Sociales; Le Psychisme Social* (1894).—M. Sales y Ferré, *Tratado de Sociologia* (1894).—A. Schäffle, *Bau und Leben des sozialen Körpers* (1875).—P. Siciliani, *Socialismo, Darwinismo e Sociologia moderna* (1879).—G. Simmel, *Ueber soziale Differenzierung* (1890); *Die Probleme der Geschichtsphilosophie* (1892).—A. W. Small and G. E. Vincent, *Introduction to the Study of Society* (1894).—H. Spencer, *Principles of Sociology* (1874-96).—G. Tarde, *La Logique sociale* (1895); *L'Opposition universelle* (1897); *Transactions of the National Association for the promotion of Social Science* (founded by Lord Brougham, 12th October 1857, as "a point of union for social reformers," and for promoting legal, sanitary, educational, and economic reforms by means of annual public meetings: dissolved 15th April 1886).—A. Vaccaro, *La Lotta per l'esistenza* (1886).—I. Vanni, *Programma critico di Sociologia* (1888).—L. F. Ward, *Dynamic Sociology* (1897).—R. Worms, *Organisme et Société* (1896).] J. D. R.

SOCIAL SCIENCE (SOCIOLOGY) A hybrid word first employed by Auguste COMTE to denote the vast department of knowledge which was earlier in this century termed the science of society or SOCIAL SCIENCE, and is dealt with in the dictionary under the latter name. Mr. Herbert Spencer in the preface to vol. i. of the *Principles of Sociology*, defends the word in spite of its origin on grounds which have been generally accepted as sufficient. Purists have suggested the word "politics," the title of ARISTOTLE'S great work on social

science as conceived by the Greek mind of the fourth century B.C.; but this word has long since acquired in European languages a much narrower signification, and is therefore inadmissible.

Strictly speaking sociology, in the sense in which it is generally used, would seem to require the qualifying epithet "human," for the class of phenomena under consideration, which Mr. Spencer, and others who have followed him, term "super-organic," are seen to some extent among communities of various kinds of birds and other animals, and of bees and ants. Such qualification is, however, needless in most cases.

The science of society is still in an extremely imperfect condition, and probably will remain so for a considerable time. It is only during the present century that exact quantitative observation of social facts has received systematic attention, and even now the difficulties in the way of obtaining such facts are very great. Much more has been obtained regarding some classes of phenomena than others. Many facts of an economic character, and what are called vital statistics, are collected with considerable regularity and accuracy, but regarding vast fields of investigation the information is scanty. Nevertheless several eminent philosophers have expressed a confident hope that eventually a science of sociology will be constituted, and Mr. Herbert Spencer, in the concluding volumes of his *Synthetic Philosophy*, has sketched in a masterly manner the lines on which, so far as can be seen at present, it must be constituted. In the *Principles of Sociology*, pt. i. ch. ii., and *ib.* pt. ii. chs. i. and xii., will be found a summary of the views of Mr. Spencer on the subject; but the whole volume, and those which precede and follow it, should be read in order to acquire a clear conception of the position he takes up. Mr. Spencer conceives of society as an organic whole constantly tending to differentiation of parts and functions, between which, however, a great degree of interdependence subsists. This complexity and interdependence of parts tends to increase with the growth of the social body. Many writers have conceived of a science of society, from PLATO and Aristotle to Comte, Spencer, and Schäffle. The latter philosopher's voluminous work, *Bau und Leben des sozialen Körpers*, is well worth the attention of the inquirer. His philosophical standpoint differs in some important particulars from that of Spencer, as well as of Comte.

It is hardly necessary to say that history, anthropology, ethnology, and economics, are the basis of sociology, and that the statistical method is one of the most valuable aids in sociological inquiries. For many branches of sociology it is the only method available, and this fact has led some thinkers to claim for statistics the position of an independent science (Maurice Block, Sir R. W. Rawson, Gabaglio), but this claim is not conceded by the majority of authorities. The claim of economics to the position of a distinct sub-science appears to be more tenable, but would not now be admitted as readily as a quarter of a century ago.

[Herbert Spencer, *Synthetic Philosophy*, *passim*, but more particularly the volumes relating expressly to sociology.—Comte, *Philosophie Positive.*—Schäffle, *Bau und Leben des sozialen Körpers*, Tübingen.—F. H. Giddings, *Sociology.*] W. H.

SOCIALISM.

Definitions and Character of Socialism, p. 431; Socialism merges into Social Democracy, p. 431; Reaction against Laissez-Faire, and Individualism established by French Revolution, 1794, p. 432; Influence of St. Simon, p. 432; A. Comte, p. 432; Fourier, p. 432; Socialism in connection with French Revolution of 1848, p. 432; Spread from France to other countries of Europe, p. 432; Scientific Socialism and K. Marx, p. 432; German Social Democracy and Lassalle, p. 433; Statistics of Socialistic Vote in different countries, p. 433; Socialism in Germany, p. 432; Socialism in Austria, p. 433; Socialism in Switzerland, p. 434; Socialism in France, p. 434; Socialism in Belgium, p. 434; Socialism in the United Kingdom and the Colonies, p. 435; Socialism in the United States, p. 435; Political Influence of Socialists, p. 435; Internationalism and Anarchy, p. 435; Socialism, State, p. 436; Socialists of the Chair, p. 437.

SOCIALISM AND SOCIAL DEMOCRACY. The term socialism, as opposed to INDIVIDUALISM, was coined by Pierre Leroux in 1838. It was then adopted by L. Reybaud in his *Études sur les Réformateurs ou Socialistes modernes* (1840); in its widest signification it is a protest against the doctrine of LAISSEZ-FAIRE, and a general attack on capitalistic enterprise. Socialism requires that the process of production and distribution should be regulated, not by competition, with self-interest for its moving principle, but by society as a whole, for the good of society. The term COLLECTIVISM more accurately connotes its aims and methods. This implies that the individuals who make up society should, in their collective capacity, possess all the instruments of production, and thus prevent the evils arising from the present industrial system. It implies the subordination of the individual to the community, and puts public utility above private interest. Under the new socialistic *régime*, it is assumed that all will receive their due, according to the measure of their capacity and willingness to perform the social duties assigned to each by public authority.

ANARCHISM, the exact opposite of socialism, would do away with state authority and destroy the present social system. There are several varieties of socialism: State Socialism (see SOCIALISM, STATE), regulation by government. Voluntary CO-OPERATION (see article CHRISTIAN SOCIALISM) is the application of the principle of association, instead of egotistical conflict of interest. But whatever its varieties, the essential character of socialism is some economic

theory which shall prove a corrective of the existing order of things, and prevent the recurrence of those social inequalities and inequitable arrangements which have produced social dissatisfaction and the problems now calling for solution. It proposes to remove the existing conflicts between capital and labour and the dependence of the worker on his employer. Thus socialism merges into social democracy, which seeks to solve the problem how to reconcile the increase of political power among the masses with the increase of wealth among the classes, and to equalise not only political rights, but also economic possessions, to enable all to share the results of human effort in more equal proportions. The earlier history of socialism is described in UTOPIAS. Here we may refer to the schemes of the fathers of the movement, St. SIMON, FOURIER, and OWEN, which contain the first protests against the theory of *laissez-faire*, or the practical working of the individualism established by the French revolution of 1794, which, as A. HELD points out in his *Sozialismus, Sozialdemokratie und Sozialpolitik* (1878), was itself a reaction against the state socialism of the *ancien régime* —against those effects of unlimited competition which were established by the political and aggravated by the industrial revolution in France and elsewhere, with the introduction of steam and machinery. The early socialists raised their protest, and in their works we see reflected the contemporary reaction of romanticism as opposed to the rationalism of the revolution. The socialism of St. Simon was eminently religious—he calls it *le nouveau Christianisme*— and it was mainly ethical; he desired to apply the principle of Christian brotherhood to industry, and that of association under the authority of a "hierarchy of capacities," in fact a "centralised industrialism under royal patronage," and all this with a view to prevent the "exploitation de l'homme par l'homme." St. Simon, and his friend and disciple A. COMTE, first introduced the idea of social evolution, with the growth of the altruistic sentiment, into economic literature. FOURIER'S leading principle, that if men were permitted to follow their own bent they would select that kind of work for which each is best fitted, and do it cheerfully and well, as opposed to the prevailing economic doctrine that all labour is repugnant to human nature, was the basis of his elaborate theory of the association of labour. Fourier suggested the grouping of the workers into "phalanges," according to their predilections and passions, in his *Nouveau monde industriel*. OWEN also desired a new organisation of labour on a moral basis, and emphasised the importance of education, as, in the "new moral world," co-operation is to replace competition. Labour tickets, representing the value of so much work done, are to be the medium of exchange in the place of money. Each of these proposals, it will be seen, militates against some of the evils of society which arise out of the free play of economic forces, and searches for some new method for reuniting the scattered units of the industrial world, so that all the weak as well as the strong may be protected and encouraged in the industrial warfare. Their final object was *l'association pacifique universelle* (see *Les précurseurs du socialisme moderne*, by B. Malon in *La Revue Socialiste*, tome xi., No. 61). The next stage of socialism was reached in 1848, in connection with the revolution of that year in France. An attempt was made to organise labour by the state. As the first revolution claimed the "rights of man," the revolution of 1848 (see ATELIERS NATIONAUX), through Louis BLANC, demanded the "rights of labour." The opening of national workshops, and the foundation of co-operative association supported by government, form the beginnings of state socialism. In his book on the organisation of labour, L. Blanc shows that the state, as the greatest capitalist, can alone compete satisfactorily with the power of capital; let it, then, become the chief competitor as an employer of labour, and by degrees the uneven conflict between capital and labour will disappear. Thus the state becomes the "sovereign of industry," but only for a time. By degrees the direction may be left to those concerned—the producers themselves—by acting committees elected out of their own class. From France, social democratic ideas found their way, through the instrumentality of secret societies, to other parts of Europe— Belgium, Switzerland, and Germany.

Germany.—In this country it led, under the influence of MARX and Engels, to the formation of the *Kommunistenbund*, from which emanated the celebrated "Communistic Manifesto," which contains the leading ideas of "scientific socialism" in embryo, and constitutes the "literary arsenal of the social democratic party." It concludes with the words, "Working men of all countries, unite," and points to a new departure of socialism, which ceases to be now a political, and becomes a purely economic movement in theory, though still using the state for party purposes. (See an article on "Socialism" (historical), in No. 2 of *Subjects of the Day*; also on further development of German socialism up to 1884, *Fortnightly Review*, for December of that year, pp. 30-34, by M. Kaufmann.)

Scientific socialism is a deduction from the doctrine of value "that labour is the only measure of value," as held by the old economists, after A. SMITH. Lassalle, following the same track, adopts Ricardo's theory of the "iron law" of wages. From the doctrine of Surplus Value, the "mother idea" of K. MARX'S negative criticism is deduced the doctrine that the capitalist is enriched by appropriating the surplus

value of commodities created by the workmen over and above that which is necessary to keep them alive. Thus "the productive power of labour in society becomes the productive power in the interest of the capitalist" (see Scheel in *Handbuch der politischen Oekonomie*, 3rd ed., p. 124 *seq.*; also HELD, on the principles and tendencies of contemporary socialism, *loc. cit.*, pp. 14-16). These ideas are ably and succinctly summarised under the following five heads by B. MALON. They are: (1) class antagonism; (2) the technical organisation of production with modifications which determine the organisation and transformation of economy and politics; (3) the capitalistic modes of production are distinguished from those which preceded them by (*a*) the separation of the producer from the instruments of production; (*b*) the intensification of work under conditions rendered more severe through those who direct and those who are engaged in the work being not brought into personal relations with each other; (*c*) reduction of wages, together with the employment of women and children, owing to the use of machinery and uncertainty of employment; (*d*) incessant increase of capital at the expense of underpaid labour, which becomes in turn the cause of further exploitation; (*e*) "the absorption" of small into large capital enterprise; and the rise of an industrial governing force, gradually diminishing in numbers and increasing in wealth and power; (4) from this results an acute antagonism between capitalists and producers whose massing in factories favours combined effort; the victory of the latter is to be attained by "la conquête des pouvoirs publics," *i.e.* by securing parliamentary majorities. (5) The victorious proletariat can only fulfil its historical mission either by gradual or by revolutionary means, according to circumstances (*Revue Socialiste*, tome xi., No. 62, pp. 137-138). As to methods of action socialists differ to some extent. There have been always the moderate and the more advanced sections, inclining towards reformatory or revolutionary methods respectively, the former willing to take their share in politics and party organisation; the latter despising and discarding such expedients in order to obtain concessions piecemeal from reluctant legislatures, and determined to work for the entire *bouleversement* of the present social order. Thus LASSALLE, the original organiser of German social democracy (1862-64), demanded universal suffrage and state subvention of productive associations. RODBERTUS-JAGETZOW proposed a gradual modification of the laws of property and such governmental interference for the protection of labour (*e.g.* fixing a normal day of labour and regulation of the rate of wages) as would gradually bring about a complete transformation of social conditions. K. MARX, the founder of the INTERNATIONAL, though opposed to ineffectual revolts against society, regarded the social revolution as inevitable, and identified it with evolution and its natural results. A union, by way of compromise, was effected between these two wings of social democracy at the Gotha congress (1874), expressed in the programme of the party (see the text in appendix to Zacher's *Die rothe Internationale*, p. 173; and the *Statutes of the International Labour Association*, *ib.*, p. 171). This programme has since been superseded by that adopted at the Erfurt congress (1891), which omits the preamble that labour is the source of all wealth and culture, and the reference to the "iron law of wages," so as to bring the programme into greater conformity with contemporary economic science. It also drops the Lassallean demand for productive associations, and emphasises the importance of class struggles. The confident tone of the early triumph of social democracy is its special characteristic (see full text of the programme in the *Protokoll über die Verhandlungen des Parteitags*, now printed in every subsequent yearly report under that title, and cp. H. Herkner, *Die Arbeiterfrage* (1894), pp. 126-128, 173 *seq.*; also the *Handwörterbuch der Staatswissenschaften*, Band v. p. 725, for the latest developments of German socialism). The following statistics show the growth of the party. In 1874 the socialist vote in the German empire amounted to 351,670; in 1884 to 549,990; in 1893 it had reached 1,800,000. The contributions from members in 1883 amounted to 95,000 marks (£4750); in 1893 to 258,326 marks (£12,916). As to the socialist press there existed in 1893, 75 political party organs in addition to 58 trades-union papers—which in Germany are mainly under socialist influence—the number of subscribers to the central organ *Vorwärts* was 42,500, and its annual profit 40,655·10 marks (£2033). Its predecessor of the same name, confiscated in 1878, had only 12,000 subscribers, whilst the whole of the party organs in that most flourishing year of social democracy did not exceed 44. The social democratic deputies in the German parliament numbered 56 in 1898, compared with 46 in 1894, and 24 in 1884. These figures explain the confident tone adopted of late by the party leaders and programmes.

Austrian Socialism, originally imported from Germany by Oberwinder and A. Becker, both followers of Lassalle, has also considerably advanced with industrial progress, greater freedom of association, and liberty of speech and meeting. The official programme of the party, adopted at the Hainfeld congress (1888-89), was framed on German models. Dr. V. Adler, son of a Jewish millionaire, is at the head of the party. Here, as in Germany, a minority of young zealots threaten from time to time to divide the party, but as yet without serious

effect on its organisation and strength. Here, too, the growth of trades unionism under socialist leaders is highly important in estimating the strength of the movement, though in both countries the practical and conservative tendencies of trades unionists provoke the fear and jealousy of the socialist protectors. Austrian socialism is also remarkable for the success of the yearly celebrations on 1st May, decreed at the Paris international congress in 1889. At the congress held March 1894, a resolution demanding universal suffrage, and recommending a general strike in the event of its refusal, was passed by 66 against 42 votes. The official organ of the party, the *Arbeiterzeitung*, has 150,000 subscribers; in all, there are 14 party prints apart from trades-union papers, with a collective impression of 78,400, which may give a clue to the numerical strength of the party. The annual receipts for the purpose of agitation, etc., according to recent reports, amounted in Austria to fl. 10,000 (£833), in Hungary to fl. 60,000 (£5000). Considering the hampering effect of still existing press laws and official opposition, overt and concealed, to party propagandism, these numbers indicate some vigour in the movement. The number of delegates from the different lands composing the Austro-Hungarian monarchy, at the Vienna congress, which increased from 67 in 1889 to 133 in 1893, speaks for itself; 74 attended the Hungarian congress at Buda-Pest. Here the land question and land nationalisation form the chief subject of discussion, industrial enterprise being still in its infancy.

Switzerland. — In Switzerland, which has been, though at different times, the centre and rallying-point of socialism, especially when persecuted elsewhere, the prevailing political institutions and conditions of local industry have thus far impeded the progress of socialism.

France. — In France, the original home of socialism, the revolutionary tendencies of the people, their impatience of party discipline and control, arising from the individualistic bent in the national character, have been the cause of division and splitting up into factions which seriously weakens the movement. Moreover, the presence of a property-loving rural proletariat and the existence of a considerable body of petty tradesmen in the towns, prove an impediment to socialistic progress. The first attempt to re-organise the party after the suppression of the commune in 1871 was made in 1876, when Jules Guesde and G. Deville, both Marxists, framed a collectivist manifesto. But the definite programme of the party was adopted at the Havre congress, 1880, following that of Gotha. At the St. Etienne congress, 1882, a split occurred between the Marxists and the Possibilists, who owe this nickname to Guesde. It expresses their opportunism, *i.e.* willingness to accept any possible social reforms by way of instalment. Their name is *Fédération française des travailleurs socialistes révolutionnaires*, Brousse and the late B. Malon being the original leaders, whilst the former call themselves *Parti ouvrier*. These contain the abler minds, the others the larger following. A further division into "Broussistes" (from Brousse) and "Allemanistes" took place in 1890 at the Châtelherault congress. But these differences spring from personal jealousies rather than from differences of principle. All aim at "l'expropriation de la bourgeoisie capitaliste" and "la socialisation des moyens de production" (on the state of socialism in France up to 1887 see an article by M. Kaufmann in the *National Review* for November 1887). Measured by electoral successes in France, the party does not appear to great advantage. In 1889 the Possibilists received 53,316 votes in Paris, their stronghold; in 1893 the socialist vote throughout France was 600,000. The anarchists do not enter into the political arena. The other socialists, including Blanquists and independents, uniting for this purpose as *L'Union révolutionnaire socialiste*, secured 123,003 votes in 20 departments. Estimated by number of party organs, and specially by the high-class tone and literary excellence of the monthly *La Revue Socialiste*, founded by Malon (d. 13th September 1893), French socialism would appear to be much more widely diffused than the votes obtained indicate, and many of its supporters are to be found among the cultured and well-to-do. There are indeed secret sympathisers, "crypto-socialists" as M. Leroi-Beaulieu calls them, from whom the movement receives material support, apart from the moral support of the "groupe des deputés républicains socialistes" in parliament. It is also strongly represented in the municipal council of Paris, which has been called "le grand conseil de collectivisme," one-fifteenth of the councillors being socialists. The increase of trades unions, more or less under socialist influences—there were 402,125 members in 1893 against 288,770 in 1892 (see *Revue Socialiste*, March 1894, p. 359),—and the concentration of socialistic forces of late, corresponding to the republican concentration, indicate a movement towards more united action.

Belgian Socialism. — In Belgium with its highly-developed industry and opportunities for combination, and the support given to socialism and its press by co-operative associations under its control, considerable advances have been made, especially since the fusion of the two main sections, the Flemish and Walloon, under Anseele, Velders, and Bertram, in 1879. It is calculated that no less than 50,000 to 60,000 persons entertain socialist theories, whilst no country can boast of so many philosophical socialists, such as Collins, the late Dr. Paepe, Agathon de Potter, Defuisseaux, and Professor

Denis of the Brussels university. The political influence of the socialists has also considerably increased since the late extension of the suffrage voters. The socialist vote in 1896 amounted to 461,000. Passing over Holland, the Scandinavian and the two Latin peninsulas, where by reason of retarded industrial development socialism has not as yet attained to anything like formidable strength, we may now turn to Great and Greater Britain and the United States.

The United Kingdom and the Colonies.—The number of actual and active adherents in England is comparatively small, but the indirect influence of socialistic propaganda on the new trades unionism is considerable. The new Independent Labour Party, together with the "Social Democratic Federation," the "Socialist League," and the Fabian Society are comparatively few in number. But their publications, meetings, and efforts have familiarised the minds of many with the doctrines of K. Marx and his school. In the colonies, owing to the powerful organisation of trades unions, and the pressure which the labour party can bring to bear on the legislature and government, state socialism has made considerable progress, whilst the philanthropic movement and the growing tendency of the ruling class to protect the weak, and to promote the welfare of those less favoured by fortune, through private and public action, has done much at home and in the British dependencies to break the force of class antagonism and to lessen the chances of socialistic agitation (see S. Webb's *Socialism in England*).

The United States.—In America, where the gulf between wealth and poverty is greater than in Europe, and the industrial warfare at times much fiercer in consequence, the theories of socialism are beginning to take root. In 1878, there were about 10,000 professed socialists in the United States. They appear to have risen to 30,000 or 40,000 since, though out of 78 sections 14 only are English-speaking. America is the home of European malcontents, and it is those who have introduced internationalism (first organised by Sorge in 1867) and anarchy. Both are busily at work, at times conjointly, at other times separately, in spreading their views among the labour associations, such as the knights of labour and the federation of organised trades unions. These they join for the purpose of becoming the "sappers and miners of the coming revolution." Some headway has been made among native Americans, who, however, whilst accepting socialistic criticisms on the existing order of things, are by no means willing as yet to entertain proposals for the establishment of a collective commonwealth. It has to be noted, however, that H. George's book on *Progress and Poverty* and Bellamy's *Looking Backward* have had a marvellously large sale in the United States. It is significant that the populist vote in 1892 amounted to one million, whilst Bryanism commanded six millions in 1896. The Controller of New York State, in his official report, regarded this as so great a danger to society that he recommended an "inheritance tax" to stay the concentration of wealth in a few hands, to which fact he ascribed it.

Thus, both in the old and new world, socialism has made considerable progress of late years; whilst the unanimity of view entertained, minor varieties notwithstanding, the methods adopted by socialists all over the civilised world, and the readiness to act in concert and to merge differences in a common assault on society, renders the movement as a whole more formidable than similar but more isolated movements in the past. With the growth of democratic representation and the increased intelligence of the labouring population in making use of their political power, the "revolutionary vote" is fast becoming a great factor in politics. Militant socialism, moreover, as a revolutionary force, may be said in membership to be equal to, or approaching in numbers the effective force of the military establishments in modern Europe—the socialist vote in Europe and America is about five millions. As the latter are recruited from the body of the people and to it return after serving their time, well trained for action in the field, and since attempts are constantly made to disseminate socialist views among soldiers, the safety of society, as far as it depends on material force, is by no means on the footing it used to be, though it has to be remembered that "the battalions of labour" are not armed. And this is rendered still more serious by the fact that the efforts of social democracy are now chiefly directed to systematic agitation among the agrarian proletariat, having for their object the capture of this strongest force of resistance to its pretensions. This being so, a critical study of the movement as a whole is all the more important, so as to discover its real danger, and, if possible, to provide the proper remedy.

Here we are only concerned with it as an economic theory, and in its influence on the development of economic doctrine. As has been said already, it is founded on the theory of surplus value as established by K. Marx, which itself rests on the fallacy that underpaid manual labour is the sole cause of accumulation of capital, which in its turn is used for the further enslavement of labour; that, in the words of the Erfurt programme, the means of production thus become the monopoly of the few, and that private property is used for the expropriation of the masses; that for this reason capitalistic industry must be

replaced by a socialistic direction of the process of production and distribution to insure social harmony in the place of competitive warfare, and concord in the place of class conflicts. It is enough to point out here in answer to this the importance of capitalist enterprise and of the direction of labour by men of high mental ability. These points are overlooked by socialism, as is also the danger of committing to public functionaries the entire control of the economic process, there being no guarantee whatever that the administration of the "Co-operative Commonwealth," if called into existence by and dependent on the will of "the people," would prove more efficacious and reliable than that of "government by class," as now carried on. On the contrary, the stimulus of individual rivalry, self-interest, and ambition being removed, social efficiency could only be secured either through a highly centralised organisation of labour by the authority of the collectivist state, which would sacrifice liberty, or by means of a moral regeneration throughout the whole community, which would cause altruistic duty to become the ruling principle of economic action. But such a moral change cannot be expected from the proposed alterations in the economic mechanism. While socialism has supplied economic science with a closer view of the darker aspects of modern industrial life, the deductions, however erroneous, of K. Marx and others, have given a clearer conception of the consequences to which an abstract view of the science may lead, unless the utmost care is taken in formulating the conclusions arrived at. Meanwhile the speculations of socialists and of utopian dreamers have been useful in reminding society of its own shortcomings by building up a high social ideal (see CONJUNCTUR).

[L. Stein, *Der Sozialismus und Communismus des heutigen Frankreichs*, 1848, and an important art. by the same writer in vol. vii. of the *Gegenwart*, pp. 517 *seq.*—G. Adler, *Die Geschichte der ersten Sozialpolitischen Arbeiterbewegung in Deutschland*, 1885, also, by the same writer, the articles on "Sozialismus" and "Sozialdemokratie" in the *Handwörterbuch der Staatswissenschuften*, edited by Prof. Lexis, where see also the most important works referred to at the close. Dühring, *Kritische Geschichte der Nationalökonomie und des Sozialismus*, 1879.—Ely, R. T., *The Labour Movement in America*, 1886.—Hyndman, *The historical Basis of Socialism in England*, 1883.—*Fabian Essays*, 1889.—F. A. Lange, *Die Arbeiterfrage*, 1875.—B. Malon, *Histoire du Socialisme*, 1882-84, and his *Socialisme Intégral*, 1891.—Rudolph Meyer, *Der Emanzipationskampf des vierten Standes*, 1874-75, and 2nd ed. of the 1st vol. 1882, which, however, is not much more than a reprint of it.—F. Mehring, *Die Deutsche Sozialdemokratie*, 3rd ed., 1879.—Mermeix, *La France Socialiste*, 5th ed. 1886.—J. J. Rossbach, *Geschichte der Gesellschaft*, vii. Theil, 1875.—W. L. Sargant, *Social Innovators and their Schemes*, 1858.—A. Sudré, *Histoire du Communisme*, 5th ed. 1856.—Schäffle (A. L. Fr.), *Die Quintessenz des Sozialismus* (1875), *Die Aussichtslosigkeit der Sozialdemokratie* (1885); and 2 vols. of his *Bau und Leben des sozialen Körpers*, 1878, containing a revised edition of *Kapitalismus und Sozialismus* by the same (1870); of which an authorised presentment by M. Kaufmann, under the title *Socialism, its Nature, its Dangers, and its Remedies*, appeared in 1874.—Hans v. Scheel, *Unsere Sozialpolitischen Parteien*, 1878.—J. J. Thonissen, *Le Socialisme depuis l'antiquité jusqu'à la constitution française du 14 Janvier 1852*, Louvain, 1852.—Werner Sombart, *Sozialismus und soziale Bewegung im 19 Jahrhundert*, 1896. See also throughout the invaluable *Bibliographie des Sozialismus und Communismus* by J. Stammhammer, 1893, and the three volumes of the *Jahrbuch für Sozialwissenschaft und Sozialpolitik*, edited by Dr. L. Richter, 1879-81. Only original writers are given above, not popularisers, with E. de Laveleye at their head, who more or less quote them; an exception, however, may be made in favour of l'Abbé Winterer, whose compilations under the name *Le Socialisme contemporain* 1878, 1882, 1885, and 1890, may serve as helps in following the movement. The original works of the principal socialist writers, like K. Marx, etc., all are given under their names *supra*. The *Handbuch des Sozialismus* by C. Stegeman and C. Hugo (1897) may also be consulted.] M. K.

SOCIALISM, CHRISTIAN. See CHRISTIAN SOCIALISM.

SOCIALISM, STATE, both in name and in fact, originated and has always found its chief home in Germany. Other nations have adopted the name, and their legislation has been modified, often very profoundly, by the ideas expressed by the name, but hardly outside Germany has there arisen any professed school of state socialists, and in no other country has the theory of state socialism been so energetically and consistently carried out.

As the name itself seems to imply, state socialism is essentially of the nature of a compromise. It may be described as an attempt to engraft certain socialistic conceptions on to the existing trunk of the historical state, and by doing so, to secure all that is good in socialism without the loss of anything that is healthful and strong in the existing order of society. While retaining the two fundamental laws of the existing historic state—the right of private property and the institution of the family—it would yet leaven the existing state with a new spirit of socialism; not subverting the state, but using it as an instrument for carrying out in certain particulars the socialistic ideal. The object which it keeps steadily in view is to aid the weak in their struggle against the strong, and by doing so to restore that equality of opportunity in which it sees at once the surest guarantee for the permanence of society and

the best means of removing the acknowledged evils which at present exist. Thus while socialism proper treats all the citizens of the state as incapables, inadequate to look after their own interests, and undertakes for them a task which it considers them incompetent to discharge for themselves, state socialism would protect, not all, but some only of the existing citizens, those, namely, whom their failure to obtain a satisfactory maintenance shows to stand in need of the assistance which the state is able to give. The theory sounds excellent and excites great enthusiasm, and there are cases, as all must admit, when the aid of the state may be legitimately invoked to redress evils which are obvious and pressing; but it may be doubted whether in practice it is a wise course for the state to interfere to save people from the foreseen consequences of their own acts; and the attempts which have been made to redress evils by the direct intervention of the state have already been productive of other evils scarcely less formidable than those which state socialism has been invoked to cure.

The theory and practice of state socialism have been, both of them, as already stated, most highly developed in Germany. The so-called SOCIALISTS OF THE CHAIR (*q.v.*) *Katheder-sozialisten*, have not only formulated a considerable body of doctrine, but have also profoundly affected the legislation of Germany during the last five-and-twenty years. It is necessary only in this connection to cite the names of Gustav Schmoller, Adolph Wagner, Lujo Brentano, and above all of ROESLER, whose writings furnish the most adequate text books of the theory. In practice the famous protective legislation of Prince Bismarck and his still more famous measures for compulsory insurance (see INSURANCE, STATE), and the establishment of old age pensions, furnish the most noteworthy examples of the application of the theory to actual legislation. The same tendency which was at work most actively in Germany did not fail to manifest itself also in other European countries. Amongst ourselves, while the term state socialism has never become fully naturalised, the ideas denoted by it have been by no means without influence. Not only was the factory legislation of Lord Shaftesbury and Mr. Disraeli a considerable practical step in the direction indicated, but J. S. Mill, in *Principles of Political Economy*, pleaded, though rather hesitatingly, for a larger measure of government interference than most of his predecessors would have been willing to sanction. Most of his successors, notably Professor CLIFFE LESLIE and Professor Ingram, have been willing to advance much farther along the same path. Nor has their teaching been without influence on much of our recent legislation—Mr. Gladstone's two Irish Land Acts are an advanced embodiment of the theory, and a large amount of recent legislation, including "the Workmen's Compensation for Injuries Act," etc., bear the same stamp.

In another direction the proposals which have been made, and to some extent carried out, to "municipalize" many undertakings, particularly those which are to some extent of the nature of monopolies, *e.g.* the supply of gas and other forms of lighting and of water to towns, are an additional proof of the practical hold which the ideas denoted by the term "state socialism" have gained amongst us. So far as the experiments have gone at present, the evidence furnished by them has been of an extremely mixed character. That such undertakings can be carried on, and even profitably carried on, by the state or municipality has been amply demonstrated. On the other hand, there are evils which experience both at home and abroad warns us will have to be carefully guarded against. They are such as these—the tendency to throw an undue share of the cost of such undertakings on a particular class; to create a body of specially-favoured workmen with peculiar privileges and special advantages; to make things pleasant all round to those in the service of the community, to the obvious detriment of the interests of the tax-payers or rate-payers generally. The proposal lately made to subsidise the opera or theatre out of public funds furnishes another instance of the spread of the ideas in question, and of the difficulty of setting limits to the principle when once admitted.

In Austria the most noteworthy adherent of the theory of state socialism is to be found in Schäffle, originally professor at Tübingen, subsequently Austrian minister of commerce. His work *Bau und Leben des sozialen Körpers* attacks the theories of orthodox political economy on grounds which are biological as well as economic.

[Besides the works already referred to, the subject may be studied in Mill, *Principles*, bk. v. ch. 11; J. E. Cairnes, *Logical Method of Political Economy*, 1875; and in the excellent work of Maurice Block, *Les Progrès de la Science Économique depuis Adam Smith*, Paris, 1890.—Ingram, *History of Political Economy*, ch. vi., Black, Edinburgh, 1888.—A. Wagner's *Lehr und Handbuch der politischen Oekonomie*, Leipzig, 1892.

See also HELD; GERMAN SCHOOL.] W. A. SH.

SOCIALISTS OF THE CHAIR, *i.e.* the professorial chair, (*Katheder-sozialisten*), was the nickname given by the liberal journalist, H. B. Oppenheim, in 1872, to a number of the younger German professors of political economy, and quoted by one of the most influential of them, Professor Gustav Schmoller, of Strasburg, in his opening speech at the Eisenach congress of economists held in the same year. The

group of teachers thus characterised agreed in believing that there were grave social questions to which it was their duty to call attention, and that these could not be solved, as the MANCHESTER SCHOOL, then dominant in the German press, and organised in the *Volkswirthschaftliche Kongress*, believed, by a mere resort to *laissez-faire*. On the other hand they differed from the social democrats in that they disbelieved in the possibility or desirability of violent revolutionary changes; and they rejected as inaccurate the "scientific" formulæ both of Lassalle and Marx,—the "iron law" and the doctrine of "surplus value." Among themselves, opinions ranged all the way from a disposition to think well of trades unions to an eagerness for state intervention in industry in all directions. But most of them were moderate in their expectations and cautious in their proposals. From Hegel and the philosophers on the one side, and from the bureaucratic traditions of the Prussian monarchy on the other, they had learned a high doctrine of the state; but they were guided in their application of it by their firm hold on the principle of relativity which had been inculcated by Roscher and the creators of the historical school. The whole group may be described as the historical school become militant,—under the stress of new industrial conditions, the stimulus of the social democratic movement, and with the confidence engendered by the establishment of the German empire. They did much to promote factory legislation, and to prepare the way for the system of compulsory insurance which may be regarded as the most notable outcome of their activity (see SOCIALISM, STATE). The term "socialists of the chair," after playing a considerable part in the controversies of a decade, chiefly in the mouths of their critics, seemed to have passed out of current use. Marked divergences had made themselves apparent among those who once bore that name,—as in practical politics between Professors Brentano and Schmoller, and with regard to scientific method, between Professors Schmoller and Wagner; while the Liberal and *Fortschritt* parties had begun to manifest a greater interest in social reform. Thus the apparent unity and distinctness of the group of 1872—then chiefly the unity of protest—had largely disappeared; though most German economists were still dominated by the leading principles of the Eisenach congress. But in 1896-97 in the attack in the German Reichstag, led by the Freiherr von Stumm, upon Professors Schmoller and Wagner, and most of the other teachers of political economy in the country, the use of the term "Katheder-sozialisten" was once more resorted to as indicating the dangerous character of their teaching, and many explanations were again given of its origin and significance.

[The best general accounts of the movement are given in the chapters under that head in Emile de Laveleye, *Le Socialisme Contemporain* (2nd ed. 1883), and John Rae, *Contemporary Socialism*, (2nd ed. 1891).

The most characteristic writings of the period are perhaps Adolf Wagner, *Rede über die soziale Frage* (1871); Gustav Schmoller, *Ueber einige Grundfragen des Rechts und der Volkswirthschaft* (1875), in reply to the attack of the historian Von TREITSCHKE in a pamphlet, *Der Sozialismus und seine Gönner;* and Lujo Brentano, *Das Arbeiterverhältniss gemäss dem heutigen Recht* (1877). See also GERMAN SCHOOL; A. HELD.

Among the fugitive writings concerning the more recent discussions, may be singled out the article by Professor Hasbach in *Die Zukunft* for 14th August 1897.] W. J. A.

SOCIETAS is a contract of Roman law whereby two or more persons undertake the mutual performance of certain acts in order to effect a common purpose. It is a contract of a less limited kind than the corresponding English contract of partnership.

Societas omnium bonorum is an entire union of property by agreement of two or more persons. *Societas* may be restricted to a particular undertaking, as making a journey in common. The acquisition of gain or profit, though it is generally the object of this contract, is not necessarily so.

Societas leonina is an agreement that a socius or partner is to be subject to loss, but not to share in the profit of the common undertaking; such a contract is void.

Unless it is agreed to the contrary, the shares of the *socii* are equal. In the administration of the common property, each *socius* is only bound to be as careful as he is in the management of his own individual property, not to take the care of a careful *pater familias*. (See PARTNERSHIP, HISTORY OF). E. A. W.

SOCIÉTÉS COMMERCIALES (Fr.). French law recognises three kinds of commercial associations—(1) ordinary partnerships, called *sociétés en nom collectif*, the title of the firm comprising the name of one or more of the partners, and the liability of each being unlimited; (2) *sociétés anonymes*, so called because they are designated by the object for which they are formed: these are the ordinary limited-liability companies in shares; (3) *Sociétés en commandite*, which share the characteristics of the two others, being composed of two classes of persons, the acting partners or *commanditiés*, with unlimited liability, and the passive or *commanditaires*, who are only liable for the amount of the capital put into the firm, but cannot take any part in the management even by proxy, without incurring the same liability as the acting partners, as specified in art. 28 (*Code de Commerce*). *Commanditaires* are distinguished from lenders at interest, as they are only remunerated from

the profits, and have a right to examine the books and accounts, be present at inventories, and exercise other prerogatives of a partner. Public companies could formerly only be constituted by a direct authorisation of the government. A first step was made towards liberty of association for commercial affairs by a law of 1863 which permitted their formation without authorisation, provided that their capital did not exceed 20,000,000 francs. That law was followed by one of the 24th July 1867, in sixty-seven articles, which forms the substance of the present legislation on public companies, with some modifications introduced by a law of 1893. As in the English law, a minimum number of seven founders is necessary for the formation of a company. The statutes must be deposited at the tribunal of commerce, or, where none exists, at the *mairie* of the locality, and be published with the documents annexed in one of the journals appointed for the insertion of legal notices. Under the law of 1867 shares could not be of a less nominal value than 100 francs (£4) when the capital did not exceed 200,000 francs (£8000); nor less than 500 francs (£20) if above 200,000 francs. The whole of the capital had to be subscribed and one-fourth be paid up before the company was constituted. By the law of 1893 shares may be of as small a value as 25 francs (£1) if the capital is not above 200,000 francs, but in that case the whole must be paid. With a capital exceeding 200,000 francs shares must not be of a lesser nominal value than 100 francs, but payment of one-fourth on allotment is sufficient. The law of 1893 modified that of 1867 on some other important points. Previously, shares might be converted by a vote of a general meeting from registered shares to shares to bearer, and the original holders only remained liable for the uncalled part of the capital for two years from the date of the meeting. By the law of 1893 shares must remain nominative until fully paid up. Ordinary shares given in part or whole payment for a business converted into a company cannot be negotiated for two years from the date of the constitution of the company. That provision was not contained in the law of 1867, and by an omission, probably not intended, the prohibition in the law of 1893 does not apply to founders' shares. The statutes of a company fix the number of shares to be held, rarely less than twenty-five, to give the holder a right to attend and vote in meetings of proprietors. Holders of a lesser number were not represented, but a clause in the new law permits them to put their shares together to make up the required number and appoint one of themselves to act as their delegate. Foreign companies whose shares are dealt in on the French market, or which have an agency in France, must appoint an approved representative, a Frenchman of substance, liable for the taxes to which the company is subject in France.

[*Code de Commerce*, arts. 18-64.—Laws of 24th July 1867, and 1st August 1893.—Duvergier, *Recueil des lois et decrets.—Commentaire de la loi du 24 Juillet 1867 sur les sociétés* par Rivière—*Régime fiscal des Valeurs mobilières etrangères en France*, par Maurice Jobit, 1893.] T. L.

SOCIOLOGY. See SOCIAL SCIENCE.

SOCMEN. Manorial tenants who were free in status, though their land was not held by charter like that of a freeholder, but was secured to them by custom. They paid a fixed rent for the virgate, or part of a virgate, which they generally held, and, taking the Peterborough socmen as samples, they were bound to render farm produce, such as fowls and eggs, at stated seasons; to lend their plough teams thrice in winter and spring; to mow and carry hay; to thresh, harrow, and do other farm work for one day; and to help at harvest for one or two days. These services, contrasted with the WEEK-WORK of a villein, were little more than nominal, and are comparable to those of the RADMANNI (*q.v.*). The Peterborough socmen reappear under the *Descriptio Militum* of the abbey, where it is said that they served *cum militibus;* but this appears to be exceptional. Socmen were, like *libere tenentes*, frequently liable to merchet, heriot, and tallage.

Their tenure was the origin of the free socage, common in the 13th century, and now the prevailing tenure of land in England; for socmen held by a fixed money payment and by a fixed, though trivial, amount of base services which would ultimately disappear by commutation.

All socmen, as customary tenants, required the intervention of the steward of the manor in transfers or sales of their rights.

About 23,000 socmen appear in Domesday, of whom one-half were in Lincolnshire and the remainder mainly in the other Danish counties; but later records show them all over England living under the soke or jurisdiction of lords, paying rent and taking a nominal share in the cultivation of their manors. Some tenants *in capite* held of the king by free socage, but were scarcely socmen, while a few true socmen appear to have held considerable estates with villeins upon them. A few socmen, on the other hand, could not leave the manors in which they were settled, that is, could not sell their holdings.

An inquisition of the time of Edward I., now in the public record office, distinguishes the three classes of manorial tenants above the villeins as freeholders *per cartam;* freeholders who are called freesokemen; and socmen who are called MOLMEN (*q.v.*).

Two other varieties of socmen are found. Bond socmen, who appear to have differed from freesokemen only in the *fact* that they gave labour in lieu of rent; and villein socmen

or privileged villeins, on lands in ancient demesne, who were men free in blood holding land in villenage.

[Vinogradoff, *Villainage in England*; — *Chronicon Petroburgense*, Camden Soc., app. p. 159.] R. H.

SODEN, Friedrich Julius Heinrich Reichsgraf von (1754-1831) was born at Ansbach. He studied law at Erlangen and afterwards at Jena and Altdorf. He was employed in the department of justice in his native state until it, with Bayreuth, was given over to Prussia in 1792. Before this, in 1790, in consideration of his services, he had been made a count of the empire. He was a Prussian official till 1796, when from a divergence between his views and those of the government on German politics, he retired to his estates, and devoted himself for the rest of his life chiefly to dramatic authorship, to the patronage of the theatre and the creation or support of other public institutions, and to the study of political economy, which he took up by desire of Karl Friedrich of Baden. In 1825-27 he represented the circle of the Upper Main in the second chamber of the Bavarian diet.

Soden was a very prolific, as well as versatile, writer; his works fill eighty vols., dealing with a great variety of subjects. His principal work is his *National-Oekonomie*, 9 vols. 1805-24, which arose out of a review of Garve's translation of the *Wealth of Nations* which he had been requested to undertake. He is one of those who, when the principles of Adam Smith had been made known in Germany, adopting them in the main, sought either to present them in a more systematic form or by a critical revision to fix more exactly the fundamental conceptions of the science. Soden stands essentially on the basis of Smith's doctrine, which, however, he does not always represent correctly; he rejects the mercantilist views, and condemns prohibitions and high duties on imports or exports, but is not an unconditional advocate of the free-trade principle. He depreciates unduly the *Wealth of Nations* in regard to its form and style, speaking of it as utterly wanting in orderly arrangement, so as to be only a series of "precious fragments," and as marred by obscurity and ambiguity. He also censures Smith as not possessing a grasp of the whole subject, and as too narrowly English in his ideas. Cossa avenges Smith by describing Soden himself as "obscure, prolix, and inclined to merely verbal disputes."

[Gross in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher in *Gesch. der N. O.*, p. 674.—Cossa, *Introd. allo studio dell' E. P.*, p. 322]. J. K. I.

SOETBEER, Adolph (1814-1892). Few German economists, or to be more exact, few German specialists, have enjoyed a greater reputation in foreign countries than Adolph Soetbeer. He was one of the first authorities on monetary questions and especially on the statistics of the precious metals to which subject exclusively he devoted the best years of his life.

Born in Hamburg, 23rd November 1814, the son of a prosperous merchant of that city, he studied at the universities of Berlin and Göttingen, taking his doctor's (Ph.D.) degree at Göttingen in 1837, having given special attention to philosophy and history. After his return to his native city he began studying the Hamburg customs' regulations, Hamburg being at that time a free Hanseatic city. It was the published results of this work that started Soetbeer in his career as an economist and brought him successively the offices of librarian (1840) and secretary (1843) of the Hamburg chamber of commerce. In these important positions he rendered great and well-recognised service to the cause of good statistics by his methods in the editorship of the statistical publications on Hamburg commerce. After the Frankfurt parliament in 1848, in which he took part, he was for a time connected with the Magdeburg chamber of commerce as "Kammerkonsulant" and later again in Hamburg. In 1872 he returned to Göttingen, where he lived quietly as honorary professor of the university, restricting his work and lectures to his special studies on monetary topics.

Undoubtedly Prof. Soetbeer was well versed in general economic literature, as may be inferred from the fact that he made a very satisfactory translation of John Stuart Mill's *Political Economy* with critical notes; but since 1846, when he published his *Denkschrift über Hamburgs Münzverhältnisse* (published in Hamburg 1846, but reprinted in numbers 13, 14, and 15 of the weekly supplements to the stock exchange list, Hamburg, 1850), he showed a decided and ever increasing interest for monetary studies, and it is in this line that he rendered the greatest service to the economic literature of his time.

He was always a gold monometallist. Where he lived and worked he saw most plainly the evils caused by the current silver coins, which lacked uniformity, throughout the various German states before their unification, and he knew well Germany's loss in the commercial world, due to her unfavourable position in foreign exchanges. He believed that Germany could compete with England in foreign commerce if she had as stable and sure a monetary system, and because England's coinage was on a gold basis Germany's must be also. To accomplish this was Soetbeer's dream long before the German coinage acts of 1871-73 became a possibility. Almost alone in the early battles, he fought for gold coinage when he had nearly all the powerful commercial and political forces against him, and he well deserved the name that was later given him,

"father of the German gold coinage." The success of his project once assured, after so many long and hard battles to obtain it, and later to maintain it, it is not to be expected that he would agree to any proposal to destroy the work he had done, even if changed conditions made its expediency doubtful. He therefore was among the first to call in question the results of the researches of the celebrated Vienna geologist, Eduard Suess, whose *Zukunft des Goldes* in 1877, with its gloomy predictions for the future of the production of gold, spread general alarm in economic circles. Yet Soetbeer knew better than many of his less liberal followers the evil effects of the continued fall in the value of silver. He gave every plan for attaining to a qualified restitution of its former purchasing power careful consideration, always, however, with the determination that no change should receive his approval which would disturb the single gold standard as a monetary basis. Shortly before his death he made suggestions to various conferences proposing plans by which silver should be given as large a place in the world's coinage as would be, according to his opinion, consistent with the maintenance of the single gold basis. He and Prof. Suess discussed, on the most friendly terms, all possible proposals to prevent the continued fall in the gold price of silver, though Soetbeer would never have agreed to Suess's suggestion of a single silver standard, nor did he have any faith in the soundness or possibility of the bimetallic solution.

Soetbeer's literary activity was really astonishing. His independent and noteworthy publications number over one hundred. Besides these he published much in newspapers and periodicals. A fairly complete list of his works is to be found with some biographical references in Schmidt's article on Soetbeer in Conrad's *Handwörterbuch der Staatswissenschaften* (bd. 5, p. 692, Jena, 1893). The most important are as follows:

1. *Materialien zur Erläuterung und Beurteilung der wirtschaftlichen Edelmetallverhältnisse und der Währungsfrage*, Berlin, 1885. Second and enlarged edition, Berlin, 1886. The second edition is translated into English and published in the appendix to the final report of the gold and silver commission, London, 1888, price 2s. 6d. Another English translation, made by Prof. Taussig of Harvard University, is to be found in the United States consular reports, special report, entitled *Bimetallism in Europe*, Washington, Dec. 1887. There is a French translation by Ringeisen, Nancy, 1889. 2. "Edelmetallgewinnung und Verwendung in den Jahren 1881-90." Conrad's *Jahrbücher*, folio 3, band 1, Jena, 1891. 3. *Edelmetallproduktion und Wertverhältniss zwischen Gold und Silber seit der Entdeckung Amerikas bis zur Gegenwart.* Gotha, 1879. 4. *Beiträge zur Geschichte des Geld- und Münzwesens in Deutschland*, 1-3 Abschnitt (*Forschungen zur deutschen Geschichte*, 1 und 2 bd.) Göttingen, 1861 and 1862, 4 Absch. same collection, vols. 3 and 4, Göttingen, 1864. 5. *Denkschrift betreffend die Einführung der Goldwährung in Deutschland mit besonderer Rücksicht auf die Hamburger Bankvaluta*, Hamburg, 1856. 6. *Andeutung in Bezug auf die vermehrte Goldproduktion und ihren Einfluss*, Hamburg, 1852. 7. *Zur Frage der deutschen Münzeinheit, mit besonderer Rücksicht auf die abweichenden Währungen in Hamburg und Bremen.* Printed as manuscript for the Heidelberg Handelstag, 1861. 8. "Bericht über die bevorstehende Münzreform; gegen die vorgeschlagene Doppelwährung. Der Uebergang zur Goldwährung" (Aufsätze in *Bremer Handelsblatt*, No. 899, 924-927), Bremen, 1869. See also a paper with similar title in proceedings of the twelfth congress of German economists held at Lübeck in 1871. Proceedings published, Berlin 1872. 9. "Die Wirkung der Silberentwerthung," Conrad's *Jahrbücher*, 1884, Jena. 10. *Deutsche Münzverfassung. Mit Erläuterungen versehen von Soetbeer.* This important collection of German monetary laws with Soetbeer's interesting notes and explanations, and an introduction of thirty-four pages, bears no date nor mark of place of publication (Erlangen, 1874-76) 11. *Litteraturnachweis über Geld- und Münzwesen*, Berlin, 1892. The most complete bibliography of monetary literature extant but less complete on the side of the English literature than on that of the German.

[See articles on INDEX NUMBERS; PRICES, HISTORY OF, 1850-1896; SILVER, DISCOVERIES OF; SOETBEER'S TABLE OF PRICES; TABULAR STANDARD.] S. M'C. L.

SOETBEER'S TABLE OF PRICES. In the seventh part of Dr. Adolph SOETBEER's remarkable work entitled *Materials toward the Elucidation of the Economic Conditions affecting the Precious Metals and the Question of Standards*,[1] he has devoted a quarter of his book to a discussion of variations in general prices and in the purchasing power of gold. The work was prepared at the request of the Society for Preserving the Economic Interests of Trade and Manufactures, and is an impartial collection of statistical data rather than an argument for any particular view of the money question. Dr. Soetbeer's previous publications on the precious metals, dealing more particularly with the disputed statistics of the production of gold and silver, were characterised by such painstaking methods that his price statistics were accepted at once as authoritative guides in all subsequent discussions.

[1] *Materialien zur Erläuterung und Beurteilung der wirtschaftlichen Edelmetallverhältnisse und der Währungsfrage.* Herausgeg. vom Vorstande des Vereins zur Wahrung der wirtschaftlichen Interessen v. Handel und Gewerbe. Berlin, 1885, 4mo. "Zweite vervollständigte Ausgabe," Berlin, 1886. *Graphische Darstellungen in Bezug auf die Silberfrage.* Ausgearbeitet von H. Soetbeer, Berlin, 1886. An English translation of the second edition, together with the charts prepared by the son of Dr. Adolph Soetbeer, was made by Prof. F. W. Taussig, and published in the United States Consular Report, No. 87, for December 1887. Another translation into English has been published in the appendix to the final report of the royal commission appointed to inquire into the recent changes in the relative values of the precious metals, London, 1888. This translation does not include the charts.

The method by which the quotations were obtained gave these tables additional value. From 1847 to 1888 a statement giving the weight and quality of all goods brought into Hamburg by waggon, rail, or water, including sea and river traffic, was sent to the Hamburg bureau of commercial statistics. Opposite each entry was placed by the officials of the bureau the value of the article calculated from the market rate for that day as quoted on the commercial exchange. For articles for which no quotation was given on the day of entry the probable price was estimated in the absence of other data from the purchase price plus the cost of importation. Where more than one quotation was given for the same quality the average was taken. This method eliminated the usual objection to prices based on import values as given by the importer, as is customary at United States ports of entry, because in such cases the importer is often interested in making false returns. Over three hundred articles were quoted in the Hamburg tables for the several years, and the average price of each was given, based on the average for the year of the value per unit of measurement of all the importations, inland and foreign, calculated for the most part from the actual quotations of sales on the bourse on the day of each importation. Hamburg was, moreover, during this period an important market for all raw materials. It was also a free port without duties or differential taxes.

Dr. Soetbeer selected one hundred representative articles from the Hamburg statistics, choosing those whose prices could be best followed for the whole period 1847 to 1885-86. A percentage statement of the changes in five and ten year periods of the average prices of the hundred articles for the years 1851-1880, compared with the average price of the same articles for the four years 1847-50 was published by Soetbeer at first in Conrad's *Jahrbücher für Nationalökonomie und Statistik* in 1881, new series, vol. iii. In the *Materialien* these figures were changed slightly in order to meet certain criticisms and to make them generally available as a test of the movement in the purchasing power of the standard of value. Some articles of small importance were thrown out; other articles of great importance, but whose price data were not accessible from this source, for the whole period were added and their wholesale prices taken from the yearly accounts of large institutions at Hamburg. This was the case with meat, butter, eggs, and milk. Fourteen articles of British export and manufacture whose quotations were derived from British trade statistics were added, making in all 114 articles. In the first edition of the *Materialien*, the average prices were given only for five and ten year periods: in the second edition, however, the average price of each article for each year (1851-1885 inclusive) is quoted. The articles are grouped as follows:—

I. *Products of Agriculture.*—Wheat, wheat-flour, rye, rye-flour, oats, barley, malt, buckwheat, peas, beans, potatoes, hops, clover-seed, rape-seed, rape-seed oil, linseed oil, oil-cake, raw sugar, refined sugar, spirits from grain or potatoes. Total 20.

II. *Animal and Fish Products.*—Beef, veal, mutton, pork, milk, butter, cheese, tallow, lard, hides, calf-skins, leather, horse-hair, bristles, feathers, bone, ox-horns, mucilage, eggs, herring, cured-fish, fish oil. Total 22.

III. *Southern Products.*—Raisins, currants, almonds, prunes, olive oil, French wine (exclusive of champagne), champagne. Total 7.

IV. *Tropical Products.*—(Exclusive of cotton). Coffee, cocoa, tea, pepper, pimento, cassia, rice, sago, arrack, rum, tobacco, indigo, cochineal, log-wood, red-wood, mahogany, cane, palm oil, ivory. Total 19.

V. *Minerals and Metals.*—Coal, pig-iron, bar-iron, steel, lead, zinc, tin, copper, quicksilver, sulphur (raw), saltpetre (raw, Chile), salt, lime, cement. Total 14.

VI. *Textile Materials.*—Cotton, wool, flax, hemp, silk, cordage, rags. Total 7.

VII. *Miscellaneous Articles.*—Guano, india-rubber, gutta-percha, rosin, potash (prussiate and chromate of), pitch, potash (carbonate of), soda, tallow candles, tar, wax. Total 11.

VIII. *Cotton Manufactures.*—(British manufactured articles of export). Cotton yarn, piece goods (plain), piece goods (printed), stockings and socks, thread for sewing, glass (common bottles), linen yarn, linen (plain), linen sail cloth and sails, woollen and worsted yarn, clothes, etc., flannels, etc., worsted stuffs, carpets, etc. Total 14.

In addition to the price quotations (in marks) for each article for each year, Dr. Soetbeer gave an index number (see INDEX NUMBERS) for the average yearly price of each article, and also for each group of articles. We reproduce here the group index numbers for five-year periods from 1851-1885, which show the percentage of variation for each group compared with the average prices for the group during the four year period 1847-50, which is taken as 100.

1847-50 =100	Group I.	Group II.	Group III.	Group IV.	Group V.	Group VI.	Group VII.	Group VIII.	Groups I-VIII.
1851-55	129·99	114·79	110·43	110·97	107·03	105·20	106·65	98·47	*112·22*
1856-60	131·84	132·31	134·72	122·61	118·59	107·12	108·21	102·41	*120·91*
1861-65	124·46	128·24	114·13	118·64	102·11	131·88	144·33	127·56	*123·59*
1866-70	137·74	136·35	121·54	118·32	95·47	129·17	105·90	130·55	*123·57*
1871-75	144·90	154·57	131·50	130·72	116·90	117·17	114·98	126·44	*133·29*
1876-80	138·12	146·76	138·91	126·38	94·35	102·33	96·79	111·70	*123·07*
1881-85	130·77	150·65	134·41	119·91	81·55	96·65	91·11	103·28	*117·68*

In the last column of the above table will be found the index number for all eight groups combined, covering 114 articles. Dr. Soetbeer has always laid much stress on the necessity of having a large number of articles in order to secure a safe method for measuring changes in the monetary standard. He regarded the twenty-two articles of the "Economist" as too limited a list. Many writers, on the other hand, object to a

large number of articles on the ground that it involves the assigning of too great importance to articles of which only small quantities, if any at all, enter into average consumption.

Dr. Soetbeer's figures can be continued from the same sources down to 1888, but in that year Hamburg joined the German customs union, and entry was made henceforth only of articles coming into Hamburg by sea. Therefore the figures for years since 1888 are not strictly comparable with those in the Soetbeer tables. Dr. Heinz, director of the Hamburg chamber of commerce, has estimated the corrections necessary to be made in order to use this material up to the year 1891; (see *U. S. Senate Report on Wholesale Prices*, 1893, vol. i. p. 258 ff.); but such estimates are necessarily unsatisfactory. Dr. Heinz has also revised the data for the years 1851-1888, so as to give the prices of about 180 articles based on the sea importations. This constitutes, however, a new series of prices for those years, because several of the articles included in the Soetbeer tables are not given in Dr. Heinz's list. His list is continued down to 1895 in the last report of Hamburg's *Handel und Schiffart* (1895), and will doubtless be given in subsequent reports (Dr. Heinz's tables are also given in Exhibit A, vol. i. of *U. S. Senate Report*, 1893).

In an article entitled "Veränderung im Niveau der allgemeinen Waarenpreise in den Jahren 1881-1889" (Conrad's *Jahrbücher*, neue folge, bd. 21, 1890), Dr. Soetbeer spoke less confidently of index numbers, and maintained that the number of articles is always too small. As the basis of this discussion he took the latest statistics of the German empire, giving the export and import value of goods for the whole German customs union since 1881 (published by Kaiserliches Statistisches Amt). The values are not those given in the invoices, nor those estimated at the time of entry as at Hamburg, but are calculated by a commission of experts in the leading lines of trade which is called together periodically to make reports to the bureau. Values were assigned to 933 articles by 39 experts (*Sachverständiger*) (see Band LX. *der Statistik der deutschen Reiches*). Soetbeer took the total value of the imports and exports for the year 1881, and deducted all duties paid on imports and bounties on exports, and compared the result with the total value of imports and exports similarly calculated for 1882 by placing the 1881 prices for the 1882 quantities. He found that the value of imports fell off 6·5 million marks or about 2 per cent, and that exports increased 23·2 million marks or about 7 per cent.

	Imports.	Exports.	Imports and Exports.
1881	100·0	100·0	100·0
1882	99·8	100·7	100·3
1883	98·2	98·5	98·4
1884	93·3	92·8	93·1
1885	85·8	85·8	85·8
1886	85·4	83·8	84·6
1887	85·5	83·5	84·5
1888	85·4	84·7	85·0
1889	88·6	87·2	87·9

Combining exports and imports, there was a net increase of 0·3 per cent, which amount, according to Soetbeer, is a fair measure of the change in the purchasing power of the standard of value. Adhering to the same method for the several years up to 1889, he got the results given above. Dr. Soetbeer in all his statistical work was extremely painstaking and eminently fair. Many students in all countries looked to him for reliable data concerning the production and consumption of the precious metals and the course of general prices, and still regret that no one has continued his work along the same lines, in the same comprehensive and thorough manner. S. M'C. L.

The place of Soetbeer's tables in England is practically taken by those of the *Economist* and of Mr. Sauerbeck, who by communicating his calculations to the public press every month has done a great service to statistical enquiry.

SOFT MONEY. A term occasionally given to notes (paper money), whether issued by government or otherwise, especially applied to the "green-back" circulation of the United States. This was "first issued in 1862, in the amount of $150,000,000 (£30,000,000), as *a measure of resource*, the recognised alternative being the selling of government bonds below par in gold" (Prof. F. A. Walker, *Money*, 1878, p. 369). One issue followed another with great rapidity owing to the pressure of the civil war. In July 1864 the green-back currency was worth but 35 cents to the dollar, "but at least it maintained its currency as the general medium of exchange unimpaired from the moment when it was first issued, whether wisely or mistakenly, under the stress of war down to the moment when it was made equal in value to gold by the patience of the American people, and the courage and constancy of the present secretary of the treasury" (John Sherman, 1878).

[Prof. F. A. Walker, *Money, Trade, and Industry*, 1880, p. 201.]

SOKE. In the custumary of the manor and soke of Rothley (*Archæologia*, xlvii. 128), a soke is defined as *secta ad homagium in curia . . . secundum consuetudines regni;* and it is seen that free socmen, whose holdings were scattered all over the county, owed suit to the manorial court of Rothley. The same is apparent from the lists of suitors at the courts of the abbey of Ramsey given in full in the cartulary (i. 41-43). A soke was thus a jurisdiction over free tenants without as well as within a manor. It was derived in many cases from a royal grant, as for instance that of the *soka Fraunchewyl* mentioned in the Rot. Hundred., ii. 180; but in others it was a growth of which the origin cannot be traced (see SOKEMANEMOT). R. H.

SOKEMANEMOT. A manorial court attended by free sokemen mentioned in the *Rotuli*

Hundredorum, ii. 143. Possibly like the occurrence of *curia militum* and *curia villanorum*, it is a sign of a division of the two classes of tenants in the *halimot* into the so-called court baron and the customary court; but the matter is beset with difficulties.

[F. W. Maitland, *Select Pleas in Manorial Courts*, p. xx.—Vinogradoff, *Villainage in England*, p. 365.] R. H.

SOL. The standard of value in Peru.

A silver coin weighing 25 grammes of silver 900 fine, the equivalent of the peso or dollar of Chile, and also of the five franc piece. F. E. A.

SOLDO. A copper coin of Venice and Milan. Prior to the formation of the modern kingdom of Italy, the currency system of Venetian Lombardy was as follows:

5 centesimi . .	1 soldo austriaca
20 soldi or 100 centesimi	1 lira austriaca

Besides the copper soldi, the following gold and silver coins were at that time current:—

Gold—
- Sovrano (or 40 lire piece)
- Half-sovrano (or 20 lire piece)

Silver—
- Scudo (or 6 lire piece)
- Half scudo (or 3 lire piece)
- Lira austriaca
- Half lira (or 50 centesimi piece)
- Quarter lira (or 25 centesimi piece)

F. E. A.

SOLIDARITY. The word solidarity expresses the relations of mutual dependence existing between the individual members of one and the same whole. Thus, in biology we speak of the solidarity between the organs of the same body,—between the functions of the brain, for instance, and those of the heart. Thus also in jurisprudence there is said to be solidarity between persons responsible for the same debt. Solidarity may exist not only in the order of co-existence, but in the order of succession; thus, in history there is solidarity between the present and the past generation.

This theory of solidarity has for some years held an important place in sociology, economics, and philosophy—it has even become the motto of a new school which has gathered its adherents, by a rare coincidence, both among Christian socialists and positivist and evolutionist socialists (see bibliography). Auguste Comte exemplified the subject as "the connection of each to all others under many different aspects, so as to render the feeling of social solidarity extending to all time and in all places instinctively familiar" (*Discours sur l'esprit positif*). But long before him St. Paul, addressing not only the church but the whole human race, had uttered the noble sentence, "We all are members of one body"—a speech in itself the noblest illustration of the solidarity of the race of man.

The discovery by science of order, under very different aspects, has given examples how far these declarations are founded on fact, for instance, in political economy in the question of the division of labour. It is obvious, also, that the larger part of the great recent inventions—railways, telegraphs, telephones, and, above all, of modern journalism, tend to increase continually "these relations of mutual dependence" which exist between men, and make them vibrate throughout the universe in the community of the same emotions, causing economic and political crises to be as contagious as epidemics.

The "school of solidarity" believes that this growing interdependence of individuals and peoples is a harmonic law, and that the solution of the social question must be sought in the continual development of this solidarity, especially in co-operation in all its forms, since co-operation, with its motto "Each for all, and all for each," is only the practical application of solidarity. Some objections, however, may be made to this doctrine. At first it seems that solidarity appears as a simple *fact*, devoid of all moral value and often even opposed to our ideas of justice. For instance, nothing can appear more unjust than that solidarity which makes the innocent suffer for the guilty, and visits the sins of the fathers on the children, or that which binds the destiny of the bee to that of the drone, of the industrious to that of the parasite; and almost justifies the severe remark, "the only solidarity discoverable in the world is that of mutual exploitation." The reply to this is that, even as a simple fact, solidarity testifies to the unity of the human species, its common origin and its common destiny, and compels our attention to all that happens to our fellow-creatures, whether fortunate or not, since all that concerns them concerns us. Thus, the certainty of contagious disease obliges the rich to interest themselves in the question of dwellings for the poor, to construct workmen's houses, to impose laws with regard to unhealthy dwellings, etc. Again, the feeling of the solidarity of nations, from the point of view of their economic interests, is the principal check on war.

But solidarity will gain a high moral value when it is understood, accepted, and desired by men, when it becomes the basis of *duty*, and when men, instead of resigning themselves to it as to a fatality, endeavour to realise freely that "Moral good will then be the desire to be and to behave as members of a common humanity. Moral evil will then be the desire to isolate ourselves and to keep separate from the body of which we all are members" (C. Secrétan, *Civilisation et Croyance*). Now this is exactly the course of evolution; history shows us solidarity becoming free and voluntary, gradually separating itself from the "drift of circumstance." In primitive society solidarity reigns,—a solidarity imposed by the accidents of nature or of birth. For example, all the

members of the Roman *Gens*, or of the clan, were responsible for all offences committed or all debts contracted by one of them, and the inheritance of this was obligatory on the heir (see art. NECESSARII HEREDES). The necessity of contending with the Nile floods compels all the inhabitants of Egypt to solidarity in labour and cultivation. The struggle against natural forces obliges weak individuals to combine—"Nature commands either solidarity or death" (Metchnikoff, *Les Grands Fleuves Historiques*). But little by little, and in proportion as men become more powerful, the individuals incline to separate from the primitive collectivism:—in fact, as regards offences, each one now answers only for himself. Men would proceed rapidly to absolute individualism if the feeling of human solidarity did not fortunately stop this dispersion by bringing them back by means of the thousand forms of association and insurance under a bond of a voluntary solidarity similar in a degree to primitive solidarity, but as superior to it as liberty is superior to fatalism.

At this point this theory closely approaches that of Herbert Spencer, which consists in the progressive substitution of an industrial system resting on free contract for a military system depending on coercion, in other words, the substitution of spontaneous co-operation for obligatory co-operation. This school, however, differs from that of Herbert Spencer in the sense that it does not reject all state interference, but, on the contrary, regards the state as the highest form of social solidarity. It is true it has the defect of being coercive, but it can and ought to serve to develop in the people the feeling of solidarity, which remedies the defect and prepares the means for its realisation—for instance, the system of obligatory assurance in Germany. Also, it is almost needless to add that the school of solidarity, in opposition to the individualism of Spencer, or of the Manchester school, does not favour competition, but raises the device, "union for existence," against the phrase, "struggle for existence"; and "each for all"—against "everyone for himself."

[Auguste Comte, *Cours de Philosophie positive, passim*, especially vol. iv. (1839).—Leroux, *De l'Humanité* (bk. iv. "De la Solidarité.")—Littré, *August Comte*—Renaud, *La Solidarité* (école de Fourier).—Fouillée, *La Science Sociale Contemporaine*, 1880.—Schäffle, *Bau und Leben*, etc.—Spencer, *Sociology*.—Wundt, *Ethik, eine Untersuchung der Thatsachen und Gesetze des sittlichen Lebens*, 1886.—Secrétan, *La Civilisation et la Croyance*, 1887.—Metchnikoff, *La Civilisation et les Grands Fleuves Historiques*, 1889.—Marion, *La Solidarité Morale*, 1890.—Guyau, *Éducation, hérédité*, 1890 and *passim*.—Gide, "L'École nouvelle," in *Quatre Écoles d'Économie Sociale*, Geneva, 1890; "L'École de la Solidarité" in *Quatre Écoles d'Économie Sociale*, 1890.—Denis, inaugural lecture at the university of Brussels on *Socialisme*, 1892.—Durkheim, *De la Division du Travail Social*, 1893.—Pioger, *La Vie et la Pensée*, 1893.—Lecture on *Philosophie positive*, 1893.—Gide, *L'idée de la Solidarité en tout le programme économique* (pamphlet), 1890.—Recolin, *Solidaires*, 1894 (lectures).—Bersier, *Solidarité* (lectures).—Izoulet, *La Cité Moderne*, 1895. See also publications of Christian Social Union, esp. the *Economic Review*, arts. on C. KINGSLEY; F. D. MAURICE.] C. G.

SOLIDUS (or *nummus aureus solidus*), gold coin struck by Constantine, *c.* 312 A.D., 72 to the lb. or 70·2 grains fine, the same weight as the first denarii, milliarenses, and half folles, superseded the "aureus" of Julius ($\frac{1}{40}$ lb. or 126 grains), Nero (111 grains), Caracalla (101 grains), Diocletian (84 grains), etc.

As the aureus was modelled on the Persian DARIC, so modern gold coins are modelled on the solidus, and its divisions "semis" ($\frac{1}{2}$) and "triens" ($\frac{1}{3}$). Obverse, portrait of Caesar, later with saint; reverse, allegorical or later religious; exergue often stated weight thus lxxii. or thus OB.

In the east the weight was kept uniform, and it was the standard (*c.* 312-1453 A.D.); 1 solidus = in silver 12 milliarenses, or 24 siliquæ, in copper (*c.* 312-500) 288 folles or 5760 denarii, or (*c.* 870-1453), 288 obols ($\frac{1}{2}$ folles). As the bezant it circulated among traders from India to Portugal.

In the west (after *c.* 550) its weight was $\frac{1}{7}$th less and its value 21 siliquæ; or under the salic law 40 silver deniers. Under Pepin (755 A.D.), and for nearly 5 centuries afterwards, gold coins ceased and silver sous or solidi became the standard. Pepin fixed the values thus; 1 lb. silver (=5055 grains)=22 sous (compare siliquæ) =264 deniers (compare folles); Charlemagne (801 A.D.) restored the Babylonian numbers, and enacted that 1 lb. silver=5710 grains ?=20 sous =240 deniers. In England in the 9th century 1 lb. silver (=5400 grains)=20 "scillings" (*i.e.* sous)=240 pence (the only coin); and these weights and methods of reckoning were retained until gold coinage was effectively introduced in the 14th century; Henry VII. first coined the pound into a (gold) coin, and the shilling into a silver coin of that name, but these coins were coined as though money pound (£) meant about $\frac{1}{3}$ lb. silver. In France the money pound, as such, was never coined; in 1080 A.D. it=1 marc (3777·3 grains) (4608 Paris grains) and soon afterwards was a mere figure of speech. "Sou" was also a figure of speech in the 13th century; and in 1258 and 1305 A.D., 1 marc=58 gros tournois, and 1 g.t. = 1 nominal sou (1258), but 3 nominal sous $3\frac{3}{4}$ deniers (1305). Yet Frenchmen reckoned by livres, sous, and deniers after the Carolingian proportions down to 1789, when deniers had long ceased to be coined; and peasants still call the 19th century representative of the 18th century livre 20 sous. For similar reasons an Italian "lira" is still said to= 20 "soldi." Germany has repeated French history with considerable variations; thus *e.g.* (1) mark and *lb.* are never confused, and mark= 8 oz.; (2) the Rhenish system, 1 gulden=60

kreuzer = 240 pfennige largely displaced the Carolingian system; (3) the English system prevailed in Cologne, where a mark = 3600 grains = 160 pfennige; (4) the money of account often comes very near to actual coins; thus the (coin) gulden in the 16th century = 75, 72, or 68, but never 60 kreuzer; (5) the threefold depreciation of the nominal schilling (or sou) occurred between the first half of the 14th instead of in the second half of the 13th century.

[Mommsen, *Geschichte des römischen Münzwesens* (1860), pt. viii.; Sabatier, *Description générale des Monnaies Byzantines* (1862), p. 51 (ancient). Ducange, *Glossarium ad Scriptores mediae et infimae Latinitatis*, ed. L. Favre (1886), s.v. "solidus" (mediæval); Vuitry, *Études sur le régime financier de la France avant la révolution de 1789* (1878), p. 422; new series (1883), i. 181, ii. 220; A. de Barthélemy, *Numismatique de la France* (1891), (French); C. F. Keary and R. S. Poole, *Catalogue of Coins in the British Museum*, vol. i. (1887), vol. ii. (1893), see introductions, (English); Lexis in *Handwörterbuch zur Staatswissenschaften* (1892), s.v. "Münzwesen" (German); Lexis and Keary also deal with the whole topic.] J. D. R.

SOLUTIO in Roman law is the discharge of an obligation by performance of that which is due under it. The performance may be made to the creditor either by the debtor himself or by any third person. E. A. W.

SONNENFELS, JOSEPH REICHSFREIHERR VON (1733-1817), was born at Nikolsburg in Moravia. His grandfather had been a Jewish Rabbi at Berlin; his father, a learned Semitic scholar, emigrated to Austria, became a Roman Catholic, and was ennobled by the name of Sonnenfels. The young man, in consequence of family difficulties, entered the army as a private soldier; but, when his father's circumstances improved, he commenced the study of jurisprudence at the university of Vienna in 1754. In 1763 he was appointed to the newly-created professorship of police and cameral science in that university. He held several high offices under Maria Theresa and Joseph II., and threw himself with ardour into the movement of intellectual *Aufklärung* and practical philanthropy which marked those reigns. In particular, he laboured earnestly for the improvement of the penal system, and the abolition of torture in Austria was largely due to his exertions. He was made a baron of the empire in 1804, and appears to have retained the confidence and favour of the court to the end of his life. He died at Vienna.

The principal work of Sonnenfels was *Grundsätze der Polizei, Handlung und Finanzwissenschaft*, 1763-67. His importance in the history of economics arises from the fact that this work became the official text-book of political science in the universities and lyceums of Austria (and of Hungary through the Latin translation of Beke), and continued to be in use during several decades of the present century. He was not an original thinker, nor much interested in the scientific analysis of phenomena; he was more occupied with practical precepts—with what, according to his conceptions, ought to be, than with what is. His doctrines represent an improved version of the mercantilist theory. He follows JUSTI'S views in the main, giving them a more systematic basis, and carrying them out to all their consequences. He was also largely influenced by the "inimitable" FORBONNAIS, as he calls him. He emphasises still more strongly than the earlier members of his school the importance of a dense population regarding it as one of the highest objects of statesmanship to bring about by various devices. The lengths to which he and others went on this subject help to explain the counter-exaggerations of the Malthusians at a later period. It should, however, be observed that he also insists on the useful employment of the population, and casts this burden in the last resort on the state, which accordingly he regards as authorised, and indeed bound, to interfere in industrial life, directing the activity of the citizens into such lines as will be most conducive to the good of the whole community.

Sonnenfels published his collected works in ten vols. 1783-87; the first vol. of the series contains an autobiography.

[Muncker in *Allg. Deutsche Biogr.*—Schmidt in *Handw. der Staatswissenschaften.*—Roscher, *Gesch. der N. O.*, p. 533]. J. K. L.

SORCHIN was one of the items in the ancient revenues of the petty princes of Ireland. It was an exaction of [the equivalent of] meat and drink for one soldier for one day in each fortnight. C. A. H.

SOU, the name in colloquial French of the brass coin of 5 centimes, almost equivalent to and resembling an English halfpenny. Colloquially the expressions *pièce de dix sous, de vingt sous, de quarante sous*, and *de cent sous* are also often used for half a franc, 1 FRANC, 2 franc and the FIVE FRANC PIECE.

In former times gold and silver *sous* existed, for instance the *solidi aurei* of 70½ grains coined under the Merovingian kings. The *solidus aureus* was divided into 40 *denarii*, and the *solidus argenteus* into 12; for further information see Guérard, *Prolégomènes du Polyptique d'Irminon*, Paris, 1844, pp. 114 *et seq.*, according to whom the *sou d'or* was relatively worth 90 francs (say £3 : 12s.). Pepin ceased coining gold, and introduced the silver "solidus." From the 12th century the French monetary system may be considered to have been based on the LIVRE, the lineal ancestor of the present franc, being either the *livre tournois* (coined in Tours) or the *livre parisis*, the latter one-fourth more valuable, but always a nominal money only used for accounts, both of them subdivided into 20 *sous* or *sols* of 12 *deniers*. One *sou parisis* was thus equal to 15 *deniers tournois*. For several centuries the *sous* have been simply copper coins; there was a general recoinage of *sous* in 1738, and severe penalties were enacted during the last century against the introduction of foreign copper coins—d'Avenel, *Histoire des Prix*, vol. i. p. 57,

note 1. Quite recently, 1st December 1896, a statute was again passed against the introduction and circulation of foreign *sous;* large quantities had been imported from such countries as Spain, Italy, Greece, the republic of Plata, etc., when the rate of exchange secured a considerable margin of profit to this operation, the type of coinage being the same as the type adopted in France since 1852. The amount of these foreign *sous* in circulation at the time when the law was passed was officially estimated at 13,000,000 of francs, say half a million sterling.

[See art. SOLIDUS]. E. Ca.

SOUS DE CLOCHE. French *sous* roughly coined at the time of the French REVOLUTION out of the metal derived from the bells of the churches destroyed or devastated at that time.

E. Ca.

SOUTH SEA COMPANY (SOUTH SEA BUBBLE). The war of the Spanish succession (1701-1713) involved the expenditure of large sums, and a number of navy, victualling, transport, and other debentures were afloat at a considerable discount and without any regular fund for their discharge, when, in 1711, Harley attempted to quiet the monied men and to restore public credit. It was determined by 9 Anne, c. 21, to incorporate the proprietors of those debts into a "Company of merchants of Great Britain trading to the South Seas and other parts of America, and for encouraging the Fishery." With the exception of the Portuguese and Dutch possessions, the company was granted the right of exclusive trade with the east side of America from the Orinoco to Tierra del Fuego, and also along the west, to a distance of not more than 300 leagues from the shore. Territory discovered within these limits was to be owned by the company under the crown, while power was given to the queen to direct that a stock of 20s. on every £100 of stock should be kept apart for the improvement of the fishery. To encourage the company to make settlements within the limits of their charter (8th September 1711), commercial powers and privileges, apart from any redemption of the fund, were granted in perpetuity by 10 Anne, c. 30. The stock soon rose, and preparations were made for the dispatch of a cargo in 1712, but the continuance of the war rendered this impossible.

By the Treaty of Utrecht (1713) between Great Britain and Spain, a grant was made to the queen and "to the company of her subjects appointed for the purpose," of the contract "el pacto de el assiento" (see ASSIENTO TREATY), for introducing negroes into Spanish America at the rate of 4800 annually for thirty years, and under the conditions previously enjoyed by the French Guinea Company (Koch and Schoell, ii. 125). Former assientists had been losers; and to guard against this, the company to whom the queen presented the contract was to be allowed to send to Spanish America annually for thirty years a ship of 500 tons; the king of Spain, however, reserved to himself one quarter of the profits on this ship and 5 per cent on the remainder. According to Macpherson (*Annals of Commerce*, iii. 33), "this sugarplumb of an annual trading ship . . . was too much clogged with difficulties to prove of any certain advantage," for the license for such ships was frequently suspended and the company's goods were constantly liable to seizure. A license for two additional ships to accompany the annual vessel was obtained and finally presented for the use of the company without a demand for a percentage. The ports open to the company were Panama, Portobello, Carthagena, Vera Cruz, Buenos Ayres, and Havana; inland sub-factories were also permitted, and their agents were to be found in Jamaica, at Cadiz, and Madrid. The first annual ship sailed in 1717, its tonnage having been fixed by an explanatory treaty at 650 tons, Spanish measure. The policy of paying off part of the national debt by incorporating it with the stock of successful companies was still popular, and the capital stock and yearly fund, augmented in 1714 to £10,000,000 (1 Geo. I. § 2, c. 21) was further increased in 1717 when the proprietors of certain short annuities, amounting to about £135,000 and having twenty-three years to run, were permitted to subscribe the residue into stock at the rate of eleven years purchase at 5 per cent (5 Geo. I. c. 19). A further development took place when, in 1719, the directors proposed to absorb the national debt by purchase or subscription. That portion which consisted of irredeemable, they desired to convert into redeemable funds: the various funds were then to be united in a single stock, and after seven years the interest on the debt was to be reduced from 5 per cent to 4 per cent. With the profits they hoped to start a sinking fund for the gradual extinction of the debt, while they offered the large sum of £7,567,000 for the debt. A bill to promote this scheme passed in 1720 (7 Geo. I. st. 1, c. 5). The support of the government, erroneous calculations as to the value of the South Sea trade, rumours of extraordinary profit, and the high price offered by the company, led the public to speculate wildly until the stock rose to £1000 for every £100 subscribed. The "bubble" then burst, bringing ruin not only to holders of South Sea stock, but to many others who had taken shares in the impossible speculations of the day. Walpole, who had always opposed the scheme, now came forward, and by his great financial ability gradually restored public credit. The directors were leniently dealt with, and their estates handed over towards the discharge of the company's liabilities; the payment

guaranteed to the public was remitted, and upon a division of stock among the proprietors a dividend of 33⅓ per cent was declared (Lecky, i. 326). In 1723 the capital was divided into (*a*) annuity and (*b*) trading stock, while in 1727 all debtors who had not repaid the sums borrowed in 1720 were discharged upon payment of 10 per cent of the loan. The company now turned its attention to the encouragement of the fishery. Twelve ships were built for the prosecution of the whale fishery, which had been entirely abandoned by the English, and the government, to further the scheme, repealed the duty on whale fins. But the eight voyages undertaken (1725-1732) were singularly unsuccessful, and in 1732 they sold off their ships and stores. Although their negro traffic with Spanish America, for which about thirty ships were employed, was encouraged by a license (from the E. I. Co.) to ship negroes from Madagascar to Buenos Ayres, their trade in general was precarious and unsuccessful, owing to the mismanagement of agents and the seizure of property upon slight provocation. Spain, in 1733, proposed as an equivalent for the annual ship, a return of 2 per cent on the flota and galleons during the remainder of the company's term (see GALEON). The question was discussed for several years, and though no steps were taken, no ship seems to have been dispatched after 1733 (*Macpherson*, iii. 199). The proprietors would probably have gained by the equivalent, but the profits of the illicit trade carried on by their servants was considered by many to be more valuable.

The high-handed measures taken by Spain to check this illicit trade, especially the enforcement of a right of search, led to war in 1739, and the trade was consequently interrupted for some years. By the Treaty of Aix-la-Chapelle, art. 16 (1748) the *assiento* was indeed renewed for the four years during which it had still to run, but it was soon seen that the execution of the clause was not to be permitted. War seemed imminent, but by the Treaty of Madrid (1750) England agreed, upon grant of compensation, to renounce the assiento and the annual ship (Koch and Schoell, ii. 438). Their trade with the Spanish West Indies being at an end, the company converted their trading stock into annuity stock, and practically ceased to be a trading company (A. Smith, bk. v. c. 1). It was not, however, until 1807 that their exclusive trading rights were formally lost (47 Geo. III. sess. 1, c. 23), when a guarantee fund for their indemnification was raised by the imposition of a 2 per cent *ad valorem* duty on certain commodities imported from within the limits formerly occupied by them until such time as the guarantee fund should be completed (55 Geo. III. c. 57).

[Macpherson, D., *Annals of Commerce* (1805).—Lecky, W. E. H., *History of England in the Eighteenth Century*.—Koch, C. G. de, and Schoell, F., *Histoire abrégée des traités de paix*, 1817.—Smith, A., *W. of N.*—M'Culloch, J. R., *Dictionary of Commerce and Commercial Navigation*.]

See BUBBLES, HISTORY OF; TAVERNEL; WALPOLE, Sir R.

E. A. M.

SOVEREIGN. English gold coin, first struck in the reign of Henry VII.

The following is a list of the several varieties of coins of this denomination issued since that time:—

Reign.	Year.	Rating.	Weight.	Fineness.	Value in gold 916·6 fine at £3:17 10½d. per oz.		
			grs.		£	s.	d.
Henry VII . .	1485	20/	256	994·8	2	5	1
„ VIII. . .	1527	22/6	240	994·8	2	2	3
„ VIII. . .	1543	20/	200	916·6	1	12	6
„ VIII. . .	1545	20/	192	916·6	1	11	2
Edward VI. . .	1549	20/	169·25	916·6	1	7	5
„ VI. . .	1550	24/	240	994·8	2	2	3
„ VI. . .	1551	30/	240	994·8	2	2	3
„ VI. . .	1551	20/	174·5	916·6	1	8	4
Mary . . .	1553	30/	240	994·8	2	2	3
Elizabeth . .	1558	20/	174·5	916·6	1	8	4
„ . .	1601	20/	172	916·6	1	7	11
George III. and subsequently	1817	20/	123·27	916·6	1	0	0

From the reign of James I. to the beginning of that of Charles II. the principal gold coin was the UNITE; while from 1663 to 1816 the chief English gold coin was the guinea (see GUINEA). The sovereign, therefore, did not assume its present important position in the currency system of England until the passing of the coinage act of 1816, when this coin was adopted as the standard of the new gold currency, and became the "pound sterling" of gold in place of the former "pound sterling" of silver (see POUND STERLING).

F. E. A.

SOVEREIGNTY. A *sovereign state* is a state whose government, while receiving the habitual obedience of the bulk of its subjects, does not itself render habitual obedience to any human superior.

The *Sovereign* in an independent state is that person or body of persons which exercises supreme control, and is not legally bound to submit to the control of any other authority, internal or external. *Sovereignty* is the power of supreme control, possessed by the sovereign one or number. It has been divided into internal and external sovereignty. The former refers to the final and absolute determination of domestic affairs, the latter to a similar authority over dealings with foreign powers. The distinction is useful when we discuss those anomalous political communities which are said to possess "autonomy" under the suzerainty of some external ruler, by which is meant that the home government controls internal matters, but cannot settle the relations between the community and other states without the consent of the suzerain power. Sometimes only certain classes of foreign affairs are thus reserved; and such

cases are described by saying that the local rulers are deprived of a portion of the powers of external sovereignty. Another important distinction is drawn between legal and political sovereignty. Legal sovereignty is defined by Professor Dicey as "the power of law-making unrestricted by any legal limit"; while of political sovereighty he says, "that body is politically sovereign or supreme in a state the will of which is ultimately obeyed by the citizens of the state" (*Law of the Constitution*, Lect. II.). He illustrates his meaning by a reference to the British constitution, where we have in parliament a supreme legislative assembly, which can make or unmake any law, and has no legal authority above it to set it laws which it is bound to obey. But nevertheless this parliament, or rather the most important part of it, the House of Commons, must in the last resort conform to the will of the majority of the electorate, which has no power of itself to make laws, but can, at a general election, call into being a law-making body pledged to carry out its wishes. The definition of legal sovereignty just quoted might with advantage be enlarged so as to include administration as well as legislation. With this alteration in the statement of terms, the distinction we are considering is most valuable; but it does not apply to states which are living under autocratic rule. It would be absurd to speak of the Russian people as possessed of political sovereignty. Moreover in countries which live under a federal system of government, for instance the United States of America, it is very difficult to discover where the legal sovereignty is placed.

[See Austin, *Jurisprudence*, Lect. VI., London, 1869; Maine, *Early History of Institutions*, Lect. XII., London, 1875; Bluntschli, *Allgemeine Staatslehre*, bk. vii., Stuttgart, 1875; Dicey, *Law of the Constitution*, Lects. I.-IV., London, 1886]. T. J. L.

SPANISH SCHOOL OF POLITICAL ECONOMY. During the 16th, 17th, and 18th centuries, Spain produced a considerable number of writers on economic subjects, many of whom are quite worthy of attention, though in that fragmentary and empirical age, as it has been aptly called by Professor Cossa, they only dealt with the possible remedies against the frightful existing evils and abuses.

Ferdinand of Aragon and Isabella of Castile (1474-1516) had left Spain a united kingdom, with prosperous trades, arts, and agriculture, and with a currency restored on a sound and dependable basis. Their grandson, the emperor Charles V. who was king of Spain from 1516 to 1556, and after him Philip II. (1556-1598), strained the resources of the country by employing it as the instrument of their schemes of universal dominion. Under their successors, the four last kings of the Austrian dynasty, Spain became more and more an utterly exhausted and ruined kingdom ruled by a squandering, dishonest, and pompous court, encumbered with unpaid debts and painfully raising a bare hand-to-mouth subsistence by the most oppressive and often absurd fiscal exactions. The opening of the New World gave at first a wonderful impetus to the export of Spanish manufactures, but the enormous rise of prices caused by the abundance of American silver, which was experienced in Spain earlier than in the rest of Europe, and was intensified by the prohibition of the export of bullion, prevented the possibility of exchanges on the normal basis with the neighbouring nations. Simultaneously the final expulsion of the Moors and the legal disqualifications imposed on the descendants of converted Jews (*Marranos* and *Cristianos nuevos*), annihilated the only classes conversant with the successful cultivation of land and the working of the money-market. Besides the systematic debasement of the currency dating from the first years of the 17th century, the neglect of all public works; the stringent official and fiscal trammels (*Plateos y Tonelada*) imposed on intercourse with the colonies; a fitful economic policy, at one time striving to suppress foreign imports, at other times anxious to secure cheapness by favouring them and restricting exports; the taxation of corn; the privileges of the powerful association of owners of wandering sheep flocks (see MESTA; TRANSHUMANCE) preventing the extension of agriculture; the stringency of taxation, as the ALCAVALA and the MILLONES, levied on the daily sale and consumption of the necessaries of life; the terrible mismanagement of state MONOPOLIES—all concurred to turn the soil of Spain into wide and uninhabited wastes (*despoblados*), where, according to the Venetian ambassador Soranzo, "every thing was wanting and at inexpressibly high prices." The middle classes almost ceased to exist as an economic force. Foolish pride assisted in this; after 1505, every Castilian burgher and almost every mechanic was allowed to entail his property both real and personal, and became eager thus to raise his family to the rank of *hidalguia* (gentility), which conferred exemption from direct taxation, but debarred the possessor from all professions connected with trade and manufactures. In short, the whole drift of the legislation, especially for Castile, cannot be better summed up than in the words about Sicily used by Coleridge in his *Table Talk*: "You may learn the fundamental principles of political economy in a very compendious way by taking a short tour through Sicily and simply reversing in your mind every law, custom, and ordinance." Owing to their political and fiscal autonomy and privileges, as well as to their favourable situation on the sea-shore, Valencia, Catalonia and the Biscayan provinces alone more or less succeeded in keeping alive something of their former prosperity.

This short sketch enables us to realise what an ample field was opened for proposals of reform.

One class of writers may be dismissed summarily, namely the so-called *arbitristas* and *proyectistas*, or inventors and defenders of interested or foolish financial nostrums intended to fill the empty coffers of the royal treasury; Colmeiro devotes to them the last chapter of his economic history of Spain. But the more serious writers or *políticos*, as they are called in Spain, deserve to be noticed; almost all of them belonged to the secular or regular clergy, except during the 18th century, under the domination of the reforming kings of the Bourbon family, when they were recruited among the higher ranks of the civil service.

Although theoretically distinguishing between the intrinsic and the extrinsic value of money on the lines of AQUINAS,—MARIANA stands forward prominently as a firm upholder of monetary honesty; besides him, father Marquez, preacher to King Philip III. and professor of theology in the university of Salamanca, maintains the same principles in his *Gobernador cristiano* (1612), as well as Gonzalez de Ayala (*Discurso sobre la reduccion de la Moneda*, 1626), Cellorigo (*Memoriales sobre la política necesaria á la república de España*, 1600), Carranza (*El Ajustamiento de la Moneda*, 1629), DÁVILA Y LUGO, FAJARDO, and DORMER. Many of these express opinions akin to those of GRESHAM as to good money being driven out by bad, and also inveigh against the unwisdom of the nation which owned the silver and gold mines of Peru and Mexico in opposing the export of the precious metals. In the absence of satisfactory official returns, several contemporary writers endeavoured to ascertain the quantities of these metals imported into Spain; among these were Father Mercado (*Tratos de mercaderes*, 1569), Valle de la Cerda (*Desempeñod el patrinonio de S. M.*, 1618); MONCADA, NAVARRETE; Peñalosa (*Libro de las cinco Excelencias del Español*, 1629); Perez de Rocha (*Epítome político*, 1644), Mendo, (*Principe perfecto*, 1662), and Solorzano (*De Indiarum Jure*, 1672). In the 18th century, UZTARIZ adopted the calculations of Moncada and Navarrete, and continued them up to his own time (1724). During the second half of the same century, Salazar (*Restauracion política de España*) and at the beginning of ours, Canga Argüelles in his *Diccionario de Hacienda* (article "Caudales") have also attempted to solve this statistical problem.

The conquest and colonisation of the New World attracted thousands of Spanish adventurers, and everywhere complaints arose about the *despoblacion* resulting from this emigration towards the *bella retirada*, as America was called in the popular language of the day. These complaints are often echoed in the writings of the *políticos* such as MONCADA, NAVARRETE, and Peñalosa; generally, however, they point out the injurious influence of the European wars then being carried on, and of the progressive and continuous decay of trade and manufactures. In the 18th century, UZTARIZ and LARRUGA (vol. vii. of his *Memorias políticas y económicas*) steadily maintained that the depopulation of the country, which has perhaps been exaggerated, had for its principal and almost only cause the loss of its productive industries. On the closely related question of the expulsion of the remaining descendants of the Moors, it is worth mentioning that two *políticos*, themselves members of the clergy, NAVARRETE, royal chaplain and canon in Santiago in his *Conservacion de Monarquías* (*discurso vii*) and father Alonso Fernandez (*Historia de Plasencia*, bk. iii. ch. xxv.) boldly remonstrated against the sweeping though popular measures taken against these, perhaps disaffected, but industrious and useful subjects of the Spanish crown.

If population decreased, crowds were still left who, through necessity or disinclination to work, became professional beggars, and the question of the poor was permanently debated from the beginning of the 16th century. The humanist VIVES, whose treatise *De Subventione Pauperum* (1526), dedicated to the magistracy of Bruges in Flanders, inspired most of the legislation of Northern Europe, was a Spaniard by birth; in Spain itself a copious and special literature was constantly pouring forth from the days of GIGINTA, MEDINA, and HERRERA to those of UZTÁRIZ and even WARD. With differences as to the method of proceeding, there exists among them a general agreement that the law ought to coerce vagrants and idlers, whilst providing for those actually destitute. Moved by his theological zeal, the Dominican Soto, in his *Deliberatio in causa Pauperum* (1545), stood isolated in his protest that moving from one place to another and begging was a natural right, and that the state is not entitled to set up a distinction between *bona fide* and pretended poor, whatever may be their nationality.

As to foreign trade, STRUZZI and DORMER were the sole and unheeded champions of its liberty; to the very end of the 18th century all the leading writers belong to the mercantilist school, with, during the latter period, a loudly professed admiration for COLBERT. During the 16th century the national policy had fluctuated between the mediæval anxiety to secure plenty and the desire to favour native industry, but from the beginning of the 17th, MONCADA, Damián de OLIVARES, and Gracian Sarrano, showed themselves unflinching partisans of the most inflexible mercantilism; during the 18th, its principles were in the same uncompromising way defended by UZTÁRIZ and ULLOA and with more moderation by WARD, with this difference, however, that instead of repelling industrious and skilled foreign artisans, they proposed to attract

them by liberal and favourable treatment. Having travelled abroad, they had learned to prize the superiority of foreign countries. Notwithstanding this universal faith in mercantilism, a persistent and almost unanimous opposition was manifested against state interference with internal trade, and especially against the regulation of the price of corn. From the very commencement of the 17th century, Cellorigo, NAVARRETE, and MARTINEZ DE LA MATA strenuously attacked this last-named system, and showed its injurious influence. Still the internal corn trade only became free in the second half of the 18th century, thanks to the enlightened statesmen, FLORIDA BLANCA, CAMPOMANES, and JOVELLANOS, although the suppression of the old system had again been powerfully advocated some years before by Zabala in his *Representacion á Don Felipe V.* (1732).

From early times direct taxation had been comparatively light, but indirect taxation had continually become more oppressive and vexatious, and the idea naturally arose and spread that a great improvement would be effected if all these many and iniquitous taxes could be merged in one single and direct tax derived from the very fountain of wealth, namely land: under the pressure of circumstances, this favourite tenet of the French PHYSIOCRATS (see IMPÔT UNIQUE) was put forward in Spain almost a century before it was supported by the physiocrats themselves. Putting on one side some rather indefinite proposals as old as the reign of Philip II., Centani proclaimed in his *Tierras* (1671) that land being the only real and solid wealth, one single land-tax ought to supersede all existing taxes. Under the ministry of ENSENADA, about eighty years later, steps were taken to introduce this *Unica Contribucion*, and the necessary preliminary operations of survey and valuation of land were even effected, but this plan was afterwards abandoned. Urged by the same motives, but proceeding on other lines, Father Báutista DÁVILA (*q.v.*) had in 1651 extolled the advantages of a single and progressive poll-tax. The liberal Spanish statesmen and writers of the end of the 18th century, such as CAMPOMANES, JOVELLANOS, and others, placed more confidence in cautious and gradual reforms than in the promulgation of extreme theories or the introduction of radical innovations; their books and reports prepared the reform of the laws concerning the privileges of the *gremios* (crafts) and of the *Mesta*, and insisted on measures for the promotion of agriculture.

All the writers reviewed up to this point wrote under the spur of the existing circumstances, and excepting the mercantilists of the 18th century, without having undergone any foreign influence whatever. From the date of the translation of Adam SMITH into Spanish (by J. A. ORTIZ in 1794), opinions were entirely reversed, and Spanish economists as a rule strictly followed the guidance of Adam SMITH and of J. B. SAY, and later still of BASTIAT. Towards the end of the first quarter of the present century FLOREZ ESTRADA may be said to have acquired a distinct pre-eminence by his first-hand knowledge of James MILL and RICARDO. But he is the servile follower of no one, and never gives up his right of independent criticism, so that his *Curso de Economía Política* (1828-31—1841-48), despite the title of its French translation (*Cours Éclectique*), is not by any means the production of a shallow eclecticism. Half a century later the leading Spanish economists, such as Madrazo (*Lecciones de Ec. Pol.*, 1874-75) and Olozaga y Bustamente (*Tratado de Ec. Pol.*, 1885-86), may still be considered as a wing of the French liberal school, advocating free trade and the extension of the principle of *laissez-faire*. The celebrated economic historian, Colmeiro, whose *Tratado elemental de Ec. Pol. ecléctica* (1845) displayed a strong bias in favour of protection, reconsidered his views and took the opposite standpoint in his *Principios* (1859 and 1873), and in his valuable *Historia de la Ec. Pol. en España* (1863). The same strongly marked tendency prevails in Coll y Masadas (*Principios de Ec. Pol.*, 1872), and quite recently in Vidaurre y Orieta (*Economía Política*, 1892); this last work, developed on purely deductive and abstract lines, without the smallest tinge of induction, is remarkable from the amazingly long string of *natural laws* evolved by the author.

Notwithstanding this almost undeviating adherence to the doctrines of the French school, another tendency, already noticeable as a sort of undercurrent in Florez Estrada, comes out openly in the systems of some of the recent Spanish writers, namely the predominance given to the ethical aspects of economic problems. Although his distrust of state interference and his confidence in the unrestricted display of individual activities clearly separates him from the German *Kathedersozialisten* (see SOCIALISTS OF THE CHAIR), Carreras y Gonzalez, in his *Filosofía del Interés Personal* (1874), steadily insists on the difference between self-interest (*interés personal*) and selfishness, and Professor Piernas y Hurtado, in his *Estudios Económicos* (1889), proceeding further in this direction, maintains that pure *laissez-faire* is "mere physiocracy, nothing but physiocracy." Both keep their homage undivided between ethics and economics; and in Piernas there is also a distinct opinion expressed that economics have been led astray by abandoning the direction given and the method used by Adam Smith. Besides, for him there exist no such things as specific economic laws: laws described as such are simply universal laws considered in their

application to economic activities. A plea in favour of the relativity of economic phenomena will also be found in Rivas (*La Ec. Pol. de España*—meaning political economy for Spain,—1889) and in Conde (*Cuestiones agrárias en España*, 1889) who maintain that an economic policy ought to be primordially *national*. Nevertheless Spanish economics have not received any direct impulse from the contemporary German schools, and the influence of the latter, if felt at all, has reached Spain in completely indirect ways. Recent theories concerning marginal utility (see FINAL DEGREE OF UTILITY, and MARGIN) and VALUE also seem to be left, up to the present date, unnoticed beyond the Pyrenees.

If in the sphere of pure economics Spain does not stand high, it has not ceased to produce excellent works on financial, fiscal, and economic history. The first rank undoubtedly belongs to Colmeiro's *Historia de la Ec. Pol. en España*, 1863, which, carried to the close of the last century, is both a history of facts, institutions, and theories, presented in their historical connection. But before him, Canga Argüelles' *Diccionario de la Hacienda con aplicacion á España* (Spanish finance, 1826 and 1833), is also mainly historical; Capmany's *Memorias históricas sobre la marina y el comercio de Barcelona* (1779), and *Código de las costumas marítimas de Barcelona* (1791), and *Ordenanzas Navales* (1787), have afforded copious and interesting materials to foreign scholars; the same is also true of the works of Sempere and of the *Ilustraciones* (appendix) to Clemencin's *Elogio de la Reina Católica Isabel* (1807), which extend to the 15th and 16th centuries. On specialised subjects are to be noticed Pastor's *Historia de la Deuda Pública Española* (History of the public debt) (1863); Santillan's *Historia de los Bancos* (1865); Cardenas' *Historia de la Propiedad Territorial en España* (1873), and Iglesias, *Historia de la Beneficencia Pública en España* (1876). Besides its qualities of clearness and fulness, Piernas y Hurtado's *Tratado de Hacienda Pública*, 4th ed., 1891, must be mentioned for the historical *résumé* it gives of the development of Spanish taxation and finance from the Roman period up to 1875, vol. ii. (pp. 1-145).

[Excepting Sempere's *Biblioteca Economico-Politica* (1801-1821), and Colmeiro's *Biblioteca de los Economistas Españoles* (1880), Spanish authorities are mentioned above. Out of Spain the economic history of the peninsula has been investigated by Forbonnais, *Mémoire sur le commerce et les finances de l'Espagne* (1753); de Bourgoing, *Tableau de l'Espagne* (1789, 1797, and 1807—the two first edit. anonymous); Ch. Weiss, *Des causes de la décadence du Commerce et de l'Industrie en Espagne* (Strasburg, 1839); Maurice Ansiaux, "Histoire économique de l'Espagne au XVIe et au XVIIe Siècles" (in the *Revue d'économie politique* of 1893); Konrad Haebler, *Die wirtschaftliche Blüte Spaniens im 16ten Jahrhundert*, 1888 (a vindication against Spanish historians of the economic policy of Charles V. and Philip II.); and Bonn's *Spaniens Niedergang während der Preisrevolution des 16. Jahrhunderts* (Stuttgart, 1896). Goury du Roslan's *Essai sur l'histoire économique de l'Espagne* (1889) stops with the middle ages; a clear and well-distributed picture of the methods of Spanish administration and policy during the 16th century will be found in Gounon-Loubens, *Essais sur l'Administration de la Castille au XVIe Siècle*, 1860.

For modern Spain, books and articles in periodicals generally give very scanty information about the economic movement. Professor Max von Heckel has, however, traced its evolution in an article entitled *Zur Entwickelung und Lage der neuern staatswissenschaftlichen Literatur in Spanien*, inserted in the *Jahrbücher für Nationalökonomie* (vol. 21, new series), which, with the notices to be found in Cossa, *Introduction to the Study of Political Economy*, Eng. trans. by Dyer (Macmillan, 1893), is by far the most reliable and available source of information. See also Villeneuve Bargemont "De l'état actuel de l'économie politique en Espagne" (*Journal des économistes*, vol. vii. pp. 358 *et seq.*, 1844) and the transactions of the *Sociedad Económica de Madrid*.] E. CA.

SPECIALITY DEBT. A debt arising under a contract made by deed under seal (see CONTRACT, LAW OF) is called a "speciality debt." Whilst an ordinary contract debt is barred by the statute of limitations (see LIMITATION, STATUTES OF) after six years, a speciality debt becomes barred after the lapse of twenty years only. A speciality debt was formerly also entitled to certain privileges in the administration of the estate of a deceased debtor, but these privileges no longer exist.

E. S.

SPECIE. See MINT.

SPECIE POINT. See GOLD POINTS.

SPECIFIC PERFORMANCE. According to English law, the only remedy to which a party injured by a breach of contract is entitled is, as a general rule, an action for pecuniary damages. The courts of equity have, however, in certain exceptional cases in which damages were not considered a sufficient compensation, ordered the defaulting party to perform the act promised by him, which they were able to do owing to their peculiar power to enforce their orders by imprisonment. Specific performance can now, in a suitable case, be ordered by any court, but most actions for specific performance are still brought in the chancery division.

The most common instances of orders for specific performance occur in the case of contracts for the sale of land; contracts for the sale of chattels are not, as a general rule, specifically enforced, but exceptions have been made when the object sold was "unique" and

had a "pretium affectionis" over and above the market value. The case of the celebrated Pusey Horn (Pusey *v.* Pusey, 1 Vern. 273, cp. White and Tudor, Leading Cases, 454), is generally referred to as the leading authority on this point, though it did not arise in connection with the non-performance of a contract. Contracts for the sale of shares in companies are specifically enforced, as they relate to a subject matter which exists in limited numbers only, and cannot always be readily procured, but in the case of sales of public stock, damages are the only remedy. Contracts for personal services are not specifically enforced, but a promise *not* to give one's services to a third person during a certain time is specifically enforced by injunction (Lumley *v.* Wagner, 1 D., M. and G. 607).

The exercise of the jurisdiction relating to specific performance is subject to a number of conditions and restrictions which cannot be understood without being described in detail. It is sometimes stated by writers on the subject that the remedy of "specific performance" does not exist, or exists in an incomplete form only in systems of jurisprudence not influenced by English law, but this statement is based on misapprehension. As a matter of fact, the scope of specific performance is more restricted in English law than in the continental system of law.

[Fry on *Specific Performance*, 3rd ed. 1892; and see *Law Quarterly Review*, vol. viii. p. 250.]

E. S.

SPENCE, THOMAS (1750-1814), an English radical agitator and agrarian communist, was born at Newcastle-on-Tyne a short time before the American revolutionary war. The son of a shoemaker, he was educated for a school teacher. In a lawsuit respecting an enclosed common, it was decided that the rent of this land should be divided amongst all the freemen of Newcastle (see GILDS OF NEWCASTLE-UPON-TYNE). This led Spence to read, in 1775, before the philosophical society of his native town, a paper in which he argued that the rent of all land should be similarly dealt with. For printing this paper the society expelled him, and he removed to London and settled there as a bookseller. He edited from 1793 to 1795 a periodical entitled *Pigs' Meat, or Lessons for the Swinish Multitude*, which was made up of selected extracts from the writings of Priestley, GODWIN, SWIFT, D'Alembert, etc. He was several times prosecuted. He had a small body of followers, who, as appears from the reports of the committee of secrecy, were regarded as wild revolutionists, and excited an alarm quite out of proportion to their importance. On the appearance of OWEN, their principles seem to have passed for the time out of sight.

The doctrine of Spence consisted of a single thesis, which he preached with monotonous iteration in prose and verse. All his pamphlets are only variations on the first paper of which we have spoken, which was re-issued in 1796 with the title *The Meridian Sun of Liberty, or the whole rights of man displayed and most accurately defined, etc.*, republished 1882 by Mr. Hyndman. Every man, he holds, has a right to live, of which his social predecessors could not justly deprive him, and the individual occupation of the soil is a usurpation which later generations ought not to recognise. The soil belongs inalienably to the commune, which should let it and the buildings on it by public auction in small parcels every seventh year. The existing owners should be dispossessed, by force if necessary, and should receive no compensation, for the first occupiers were robbers and those who purchased from them are concealers who are as bad as the thieves. They have no claim on the score of capital invested in the land, for it is really the working classes who ought to be thanked for the improvements which have been made. Out of the rent payable to the commune, first its share of the general taxes, and next the entire local expenditure, should be defrayed, and then the residue divided in equal shares between all the men, women, and children in the commune, rich and poor, without distinction.

Spence was a man of very limited culture and a narrow range of ideas. Though he regards labour alone as the source of value, he confines his attack altogether to the proprietors of land, and ignores the conflict between the working man and the capitalist. The one practical measure which he all along had in view was the same as that which Mr. George has advocated; but in Spence's mind it rested, not on economic ideas, but on the sentiment of equality and the supposed rights of man.

His writings, which are now not often met with, were, in addition to the paper above mentioned—*The Rights of Man*, a poem, 1783; *The End of Oppression*, apparently 1795; *The rights of infants, or the imprescriptible right of mothers to such a share of the elements as is sufficient to suckle and bring up their young*, 1797; and *A receipt to make a Millennium or Happy World*, 1805. [Held's *Zwei Bücher zur socialen Geschichte Englands*, p. 110.—Anton Menger, *Recht auf den vollen Arbeitsertrag*, 2nd ed. 1891, pp. 143-146.]

J. K. I.

SPENCE, WILLIAM (1783-1860).

Was the author of the *Radical Cause of the Present Distresses of the West India Planters pointed out*, etc. 8vo, London, 1807, and of *Britain Independent of Commerce; or Proofs deduced from an Investigation into the true Causes of the Wealth of Nations, that our Riches, Prosperity, and Power are derived from Sources inherent in ourselves, and would not be affected even though our commerce were annihilated*, 8vo, London, 1807. M'CULLOCH, in his *Literature of Political Economy*, says of the former that it is a "well-reasoned and, indeed, unanswerable pamphlet," but of the latter he remarks that, "owing to the peculiar juncture of circumstances at the time, the nature of the statements put forth by Mr. Spence, and the little attention paid by the bulk of the people to such

subjects, which disposed them to lend a willing ear to the wildest paradoxes, this pamphlet met with a ready sale and went through several editions," and declares that it is an "exaggeration of the exploded errors of the economists." It called forth replies from James MILL (*q.v.* for the notice, in vol. ii., of his criticism of this pamphlet) and Colonel TORRENS.

SPENDINGS was an item in the ancient revenues of the petty princes of Ireland, and denoted an arbitrary imposition levied on extraordinary occasions. It was either the same as, or very similar to, TALLAGE. C. A. H.

SPOILS SYSTEM. The constitution of the United States vests the appointment of all federal officers in the president, subject to the right of congress to pass laws giving the power of filling up inferior offices to the courts of law or the heads of departments. This power of appointment was held to involve the power of dismissal also; and as a result all office-holders under the central government held their posts at the pleasure of the president for the time being, or of some ministerial chief. Moreover, acts of congress, the first of which was passed in 1820, fixed four years as the duration of about 4000 of the most important offices, and made the terms run out soon after each new president entered upon his duties.

In the early days of the national government there were no wholesale evictions. Washington and his immediate successors held that no one should be dismissed except for inefficiency or misconduct, and from 1789 to 1828 there were but seventy-three removals. But in 1829 President Jackson adopted the doctrine that "to the victors belong the spoils," and displaced large numbers of office-holders in order to fill their places with his own partisans. Other presidents followed in his steps, till the whole vast patronage of the federal government became the prize of the winning side in party warfare. The custom spread to state and municipal offices. The executive departments all over the union were filled with men whose first care was to secure victory for their party at the next elections, and whose salaries were almost invariably charged with a regular percentage for the replenishment of the party coffers. The system was defended on the ground of democratic equality. Rotation in office was elevated to the rank of a great political principle; and the danger to popular liberty from a permanent bureaucracy was constantly insisted upon. The "spoilsmen" had their own reasons for approval, and the rest of the community did not trouble themselves much about the matter. But after a time high-minded men began to revolt against methods which gave the nation inefficient service at a high cost, demoralised politics, and wasted the energy of the president, and those senators and representatives who recommended their supporters to him, upon the petty details of personal services rendered to their party. The writer of this article has himself seen, three months after the inauguration of a president, the room of his secretary of the treasury at Washington filled with applicants for office, waiting for an audience. At first the opposition to the system made little progress, and the early attempts to modify it were frustrated by interested politicians. But the corruption and inefficiency engendered by it became so glaring that public opinion ceased to tolerate them. In 1883 an act of congress was passed, which gave the president power to nominate civil service commissioners, whose duty it should be to institute competitive examinations of candidates for about 15,000 minor offices. This plan has worked well, and has been extended by subsequent legislation. The president can now by executive order add whole categories of offices to what is called the classified service. This power was largely used by Mr. Cleveland in 1896; and it is calculated that, out of about 130,000 posts in the national civil service, as many as 83,000 are at the present time won by merit and not by favour. Some of the more enlightened municipalities are beginning to apply the same method to the appointment and promotion of their officials.

It is quite possible that the United States, having long been behind Great Britain in the efficiency and purity of its civil services, may lead the way for the old country in a much-needed reform of those municipal and local services which are growing more numerous and more important every day with the growth of the functions of local government.

[See Bryce, *American Commonwealth*, ch. lxvi., London, 1895; and also the *Reports of the U.S. Civil Service Commissioners*, and the address of Mr. Carl Schurz at the annual meeting of the National Civil Service Reform League, held at Philadelphia in December 1896]. T. J. L.

SPRINGER, JOHANN (1727-1798), successively professor of political and cameralistic science in Erfurt; later an official in the financial administration of Darmstadt. He was one of the German PHYSIOCRATS, and even maintained that this system was actually applied in China 4000 years since (see Roscher, *Gesch. der Nat. Oek. in Deutschland*, p. 489, note 3).

He published *Grundriss der Cameralwissenschaft*, 1766.—*Die Grenzen der Kameral-Oeconomie- Finanz- und Polizeiwissenschaften in ihrer Verbindung*, 1767.—*Oeconomisch-kameralische Tabellen*, 1771.—*Das physiocratische System*, 1780. E. Ca.

STABILITY OF VALUE. See VALUE.

STAFFORD, WILLIAM. There was published at London in 1581 a treatise entitled "A compendious or briefe examination of certayne ordinary complaints of divers of our countrymen in these our dayes: which although they are in some part unjust and frivolous, yet are they all by way of dialogues thoroughly debated and discussed, By W. S. Gentleman."[1] The work is dedicated to Queen Elizabeth. The idea was entertained by some that "W. S." stood for William Shakspeare, and this supposition was put forward in the edition of 1751. But it was refuted by Farmer in his

[1] See also John Smith.

Learning of Shakespeare, who pointed out that Antony à Wood had attributed the work to one William Stafford of whom nothing is certainly known. Until of late he has continued to be regarded as the author.

Miss Elizabeth Lamond examined the extant MSS. of the treatise, and, in an article in the *English Historical Review* for April 1891, shows that it is extremely probable that it was written long before it was published—in fact, in the reign of Edward VI., that the author was John HALES, M.P. for Preston in 1548, and that W. S., whoever he may have been, dishonestly brought it out as his own, introducing changes to adapt it to the time of Elizabeth.

It takes the form of a series of dialogues between a merchant, a knight—representing the landowners, a husbandman, a capper—representative of the artisans, and a doctor of divinity. The last of these expresses the views of the author. He hears the complaints of the others respecting the economic evils of the period—the dearth (*i.e.* high price) of all things in comparison of the former age, "though there be scarceness of nothing"—the desolation of countries, *i.e.* depopulation of rural districts by inclosures and substitution, on a large scale, of sheep-farming for tillage (see articles on DEPOPULATION)—the "desolation of towns for lack of occupations and crafts." The rise of prices is spoken of as affecting everything except corn, which, in consequence of the late large harvests, was cheap. Various causes are assigned for it—the debasing of the currency, the importation of base coin from abroad, the undue raising of the rent of land, the preference of foreign to home manufactures, and especially the fondness for foreign fripperies and follies. Most of these are shown by the doctor not to account for the facts, and in the end, and as has been truly said, "then almost unconsciously," he hits upon the true cause of the "dearth" so universally complained of, namely the influx of the precious metals from the American mines. The author, to use the words of Mr. Matthew, is "not a scientific economist; he is only a shrewd empiric," but his views on currency are sane, his miscellaneous observations are often acute, and he gives us indirectly much information concerning the England of Elizabeth.

The treatise was printed in vol. ix. of the *Harleian Miscellanies* (1808). The New Shakspere Society published, in 1876, an excellent edition of it, by F. J. Furnivall, with an Introduction by F. D. Matthew. J. K. I.

Dr. Furnivall thinks that W. S. cannot stand for the William Stafford who was concerned in a rebellion in 1587. Dr. Leser, in his introduction to the German translation (*Sammlung älterer u. neuerer staatswirthschaftslicher Schriften*, No. 5, 1895), argues that a Stafford, who was surveyor to the bishop of Norwich and is mentioned in the *Calendar of State Papers*, Domestic, 1578, p. 551, may have been the author, but there is little evidence in support of this suggestion. In the introduction by Dr. Cunningham to Miss Lamond's edition, which was published under the title *A Discourse of the Common Weal* (Camb. Univ. Press, 1893) it is suggested that no great weight need be attached to Anthony à Wood's assertion (*Fasti Oxon.*, pt. 1, col. 378) that the author's name was Stafford, and an attempt is made to set up a claim on behalf of William Smyth, the nephew of Sir Thomas Smyth.

STAIR, JOHN DALRYMPLE, fifth earl of (died 1789), became a member of the faculty of advocates in 1741, succeeded to the earldom in 1762, and from 1771-74 was one of the representative Scottish peers in parliament.

He was the author of several despondent tracts on the financial position of England at the close of the American war and in the following years, attempting to prove by figures that the national resources were unequal to the support of the war, that ruin must follow the secession of the colonies, and that the annual revenue could never average more than £12,000,000, while the ordinary peace expenditure, including interest on the debt, amounted to £15,000,000 or even £16,000,000. He depreciated the taxable capacity of the nation, and its probable progress after the conclusion of peace. According to Horace Walpole he was called the Cassandra of the nation.

His gloomy forecasts were refuted at the time by Sir John SINCLAIR (*q.v.*) in his *Hints on the State of our Finances*.

The pamphlets are entitled: *The State of the National Debt, the National Income, and the National Expenditure*, 1776; *Facts and their Consequences*, 1782; *State of the Public Debts*, 1783 (the last two went through several editions). *An Attempt to balance the Income and Expenditure of the State*, 1783; *An Argument that it is the Indispensible Duty of the Creditors of the Public to insist that Government do forthwith bring forward the State of the Nation*, 1783; *Comparative State of the Public Revenues for 1783 and 1784*, published 1785.

[M'Culloch, *Literature of Pol. Economy.*—*Memoirs of Sir J. Sinclair*, vol. i. p. 102-105.—G. E. C., *Peerage of England, Scotland, Ireland, etc.*] E. G. P.

STAMP DUTIES, properly so termed, are duties charged on documents and writings having a legal operation or forming necessary steps in suits in the law courts. These duties are collected by means of stamps impressed on, or affixed to, the instruments. Among stamp duties, however, were formerly included, mainly for administrative purposes, several taxes on articles of consumption (*e.g.* hats, gloves), which taxes, though collected by means of stamps, were in their essence excise duties. The present stamp duties on medicines and playing cards are of this latter description. On the other hand, postage and fee stamps do not represent duties at all, but are used as the simplest method of paying the charges of government

for particular services rendered. For administrative purposes stamps are used to denote the fixed death duties of 30s. and 50s., payable in respect of small estates.

Stamp duties were first imposed in England in 1694. They were introduced from Holland, in which country they had been adopted in 1624 at the suggestion of a private individual in response to a proclamation of the states-general offering, at a time of dire necessity, a reward for the invention of a new tax. The first English duties were *fixed* charges of 40s., 5s., 2s. 6d., 1s., 6d., and 1d, according to the class in which the instruments made liable by the act (5 & 6 W. and M. c. 21), were placed. The duties were charged for every skin, or piece of parchment or paper, upon which the instrument was written, and in order to prevent any curtailment of length with a view to avoid payment, all deeds and writings were required to be engrossed and written in the manner theretofore customary. The duty was consequently, to a certain extent, a tax on the amount of paper used. With exceptions as regards a few instruments, this was the governing principle of the various stamp acts passed subsequently down to the year 1797, when Pitt, acting in conformity with Adam Smith's opinion (*Wealth of Nations*, bk. v. ch. ii. pt. ii., appendix to articles 1 and 2), that stamp duties should be charged by reference to the magnitude of the transaction evidenced by the document rather than to the number of words used, applied the *ad valorem* principle to bonds, and proposed it without success for transfers of property, which continued till 1808 to be charged according to length. By 1815 *ad valorem* duties had become general, but the scales were arbitrary and jumping, with maximum charges for transactions over a certain amount. This defect in principle was not remedied till 1850, when *percentage* duties on bonds, conveyances, mortgages, and settlements, were substituted for the unsatisfactory scales hitherto existing. The last important step was one apparently backward, opposed to the *ad valorem* principle. In 1853, Gladstone, applying the principle of the penny postage system, imposed a fixed duty of 1d. on receipts in place of a scale with charges ranging from 3d. to 10s., and allowed an adhesive stamp to be used. The change being popular and productive, other penny duties were subsequently imposed, the principle being to tax everyday transactions at the lowest possible rate in the manner most convenient to the tax-payer.

The stamp duties now in force in the United Kingdom are those imposed by several acts now consolidated in the Stamp Act 1891. They fall broadly under four heads:—

(1) *Ad valorem* duties on bills of exchange and promissory notes.

(2) *Ad valorem* duties on transactions relating to property, *i.e.* sales, settlements of money, leases, and securities for money.

(3) Penny duties on receipts, cheques, etc.

(4) Fixed duties on deeds and instruments not before mentioned.

The liability to duty extends to all instruments of the descriptions specified which are executed in the United Kingdom, or relate, wheresoever executed, to any property situate, or to any matter or thing done or to be done, in the United Kingdom. The stamping of instruments is enforced by the general provision that, unless duly stamped, they shall not, except in criminal proceedings, be given in evidence or be available for any purpose whatever. In certain cases also personal penalties (to be sued for and recovered in the high court) are incurred by the omission to stamp. If an instrument is not stamped within a limited time, thirty days generally, after execution, it can only be stamped subsequently on payment of a penalty, £10 generally, which penalty the commissioners have power to mitigate or remit. But there are certain instruments (*e.g.* inland bills of exchange) which by law cannot be stamped after execution, and which are, therefore, void for all purposes if unstamped. The duties are placed, by the Stamp Duties Management Act 1891, under the care and management of the commissioners of inland revenue, who supply the stamps through stamp offices, post offices, and licensed vendors (Dowell's *History of Taxation, etc.*, 2nd ed. vol. iii. pt. ii.—Alpe's *Law of Stamp Duties*, 5th ed., 1896).

The net receipt of stamp duties in the United Kingdom in the year ended 31st March 1897 was as follows:—

Bankers' bills and notes, composition for duty on	£123,905
Bearer bonds and substituted securities	145,406
Bills of exchange and promissory notes	668,436
Companies' capital (joint stock)	361,567
Contract notes (brokers') above 1d.	132,541
Deeds and other instruments, not otherwise enumerated	3,913,787
Insurances, life	65,359
, marine	151,295
Licenses and certificates	166,896
Patent medicines (Great Britain)	254,726
Playing cards	22,204
Receipts, drafts, contract notes (brokers'), and other documents liable to the 1d. inland revenue duty	1,305,324
	£7,311,446

(40th *Report of Commissioners of Inland Revenue*, p. 90).

"Stamp duties, if moderate in amount, imposed by clear enactments, and accompanied by reasonable facilities for obtaining the requisite stamps, are an easy method of revenue. To regard them from the tax-payer's point of view: He pays the smaller contributions without effort, while he considers any *ad valorem* payment as, prac-

tically, part and parcel of the transaction to which the instrument liable to duty refers, to the expense of which the duty forms a hardly appreciable addition. To regard them from a revenue point of view—The tax is easy to collect, and the cost of collection is small, consisting principally of the trifling expenses of dies and plates, and payments to agents for distribution of the stamps. . . . The practical advantages which stamp duties possess have induced the adoption of this mode of taxation, in one form or another, in many countries, including France, Russia, Austria, Prussia, Italy, Spain . . . Belgium, Holland . . . some of the cantons of Switzerland, India, and several of our colonies" (Dowell's *History and Explanation of the Stamp Duties* (1873), p. 124). In France a considerable revenue, 177,568,500 francs (£7,102,740), in 1896, is obtained from stamp duties on instruments, the charges being to a small extent proportional, but mainly non-proportional, the latter category including duties payable according to the dimensions of the paper used. (For statistics for the years 1800-1892, see *Bulletin de Statistique;* July to December 1893, pp. 55-85). In Germany there are imperial stamp duties at proportional rates on securities, contracts, and lotteries, the produce in 1895-1896 being 55,036,000 marks (£2,801,800) (*Statistisches Jahrbuch für das Deutsche Reich*, 1897, p. 178). For the new Prussian stamp duties (law of 31st July 1895) see *Bulletin de Statistique*, July to December 1895, pp. 381, 513). In the United States the stamp duties (proportional for bills, conveyances, leases, mortgages, and probates) charged during the civil war on various legal and commercial instruments have been repealed, but since 1868 stamps have been used for the collection of substantially the whole of the internal revenues, the duties on tobacco, malt, liquors, spirits, and licenses being paid in this way. (*Taxation and Taxes in the United States under the Internal Revenue System*, Howe, 1896.—*United States Internal Revenue Tax System*, Eldridge, 1895). F. A.

STAMPS. See STAMP DUTIES.

STANDARD GOLD AND SILVER. See also ALLOY. The standard of fineness for gold in the United Kingdom is $\frac{11}{12}$ fine, or 916·6 (quoted also as 22 carats, *i.e.* $\frac{22}{24}$), and has remained unaltered for more than two centuries. When gold coins were first introduced by Henry III. in 1257, they were made of fine gold; and, a few years later (1265) with $\frac{1}{32}$ part of alloy. In the time of Henry VIII. some gold was coined at 20 carats ($\frac{10}{12}$ fine), but gold crowns were struck $\frac{11}{12}$ fine, which was made the sole standard in the reign of Charles II.

Standard silver is $\frac{37}{40}$ fine, or 925, *i.e.* 11 oz. 2 dwts. fine, and 18 dwts. of alloy; and assays are reported at so many pennyweights, "better" or "worse." This has been the standard since at least the time of Edward I., with the exception of from 1532 to 1552, when the coin was very much debased, even as low as 3 oz. fine to 9 oz. alloy. In 1552 the standard was raised to 11 oz. 1 dwt. fine, and in 1558 was restored to its present proportions.

In most countries the standard is $\frac{9}{10}$ fine both for gold and silver coins of unlimited tender, with a lower standard for the subsidiary coinage.

The details are as follows:—

	Gold.	Silver.	Subsidiary silver coins.
United Kingdom	916·6	925	925
British India	916·6	916·6	
Portugal	916·6	916·6	
Uruguay	917	900	900
Holland	900	945	640
United States	900	900	900
Germany	900	900	900
Chili	900	900	900
France, and Latin Union [1]	900	900	835
Austria	900	900	835
Spain	900	900	835
Japan	900	900	800
Russia	900	900	500
Denmark and Scandinavian Union [2]	900	900	600 and 400
Mexico	900	800	600 and 400
Egypt	875	902·7	902·7
	875	833·3	833·3

R. W. B.

STANDARD OF COMFORT. See COMFORT, STANDARD OF.

STANDARD OF VALUE. This subject will be more particularly dealt with under the heading of VALUE. In this place reference will mainly be made to the choice of a material which shall be available as a medium of exchange and shall provide a fixed and unchangeable standard for contracts extending over long periods of time. It is by no means a matter of necessity that the medium of exchange should be this standard of value, though it is a matter of convenience that it should be so. As it is impossible to find a commodity in which the two requisite qualities are combined we have to content ourselves with trying to get all possible stability as a measure of value in the recognised and authorised medium of exchange.

In practice no commodity whatever has yet been discovered which completely satisfies this demand. Gold and silver were chosen for the purpose even before the dawn of history, yet, to use the words of Ricardo, "Neither gold . . . nor any other commodity can ever be a perfect measure of value for all things," while but little practical inconvenience has been felt from gold and silver being the general medium in which the value of all other things is estimated. Though undoubtedly these form a variable measure of value, there are probably no commodities subject to fewer variations, and these have been spread over a period of many years, a circumstance which has greatly diminished the inconvenience arising.

At the present time (1898) in all the principal countries and commercial centres of the civilised world, gold is the sole standard of

[1] France, Italy, Belgium, Switzerland, and Greece.
[2] Denmark, Sweden, and Norway.

value. A gold coin, the sovereign or pound sterling, is the recognised embodiment of the standard in the United Kingdom for all business purposes.

This suffices for present wants. For historical purposes in all comparisons of values made over long periods it is usual to take as the "standard of value" something other than the common means of exchange, to seek to allow, in fact, for the variations in the value of money by estimate of the price of corn, the quantity of wheat which the usual day's wages of an ordinary working man will purchase, etc.

It is thus sought to obtain a measure of the variableness of the value of money, and for that purpose to set up some "standard of value" as a reference standard which shall itself be invariable.

Such invariability is impossible of achievement, impossible even of conception, if we require the same standard to be invariable for all persons and all times. The impossibility arises out of the human element of value, from the fact that value has reference not to a property inherent in a commodity, but to the estimate by a person of the desirability of the possession of the commodity.

As in the nearly analogous case of INTRINSIC VALUE (*q.v.*), the position of the standard of value depends on circumstances extraneous to itself.

STANDARD RATE (OF WAGES). The insistence on payment according to some definite standard, uniform in its application, is the most universal of TRADE UNION regulations.

The most rudimentary forms of combination, such for instance as the "shop bargain" in an unorganised trade, require that all workmen shall receive the rate fixed for the particular job. The organised union, whether local or national, requires that all its members in the town or district shall be remunerated for their effort according to a fixed standard rate of payment. The standard rate is never a maximum but only a minimum. Thus the London Central Master Builders' Association and the Friendly Society of Operative Stonemasons agree that the minimum wage of able-bodied masons shall be tenpence per hour. This, however, does not hinder any individual stonemason from receiving more if his employer thinks his character and skill justify a higher rate. Thus, again, the "log" settled between the Amalgamated Society of Tailors and the local Master-Tailors' Association fixes the payment for making each kind of garment in any particular town, but many master-tailors will be paying their workmen much higher rates. We are aware of no case of members of a trade union being prevented or discouraged by their union from receiving higher rates than those decided on for the whole body as the general standard.

A considerable equality of rates results from the existence of this standard, notwithstanding that it is a minimum and not a maximum. It is observed, and no doubt correctly, by employers that the being compelled to pay each man at least a certain fixed minimum rate must lead to a more uniform rate than would otherwise prevail, and hinders the system of graduating the rate "according to merit." This result cannot be proved to be inevitable by any deductive argument except that which asserts the existence of a fixed and unalterable "wage fund." The "rent of ability" may always be obtained, in theory, by any workman above the class considered by the employer as the worst, this being merely the equivalent of his superiority, whatever arrangements the employer makes with the workmen below the average. No fair-minded trade unionist however would deny that for all competent workmen the minimum rate tends to become a uniform rate. When the employer gives up his right to take full advantage of the necessities of the individual workman, he expects that other workmen, though they may be in a position to exact better terms, will submit to the standard rate collectively agreed to for them by representatives of the whole body.

This result has been denounced as paying "bad and lazy workmen as highly as those who are skilled and industrious"; setting a premium on idleness and incapacity, "destructive to the legitimate ambition of industry and merit," and as being, that "worst kind of communism," an equal remuneration of all men. Such criticisms confuse the rate of payment with the amount actually earned. A standard "rate" of payment for the work actually performed is a necessary condition of collective bargaining. But this in no way interferes with workmen's receiving pay most widely differing in amount. Thus the standard rate insisted on by most trade unionists is not any definite sum per hour, but a list of piece-work prices.

It is seldom realised how largely these piece-work lists extend over the country. In countless trades, such as basketmakers, boot-makers, brushmakers, compositors, coopers, tailors, etc., there are lists of prices dating from the beginning of the century, revised from time to time and signed by both employers and employed. These are but little known even by those who have heard of the elaborate tonnage rates of the ironworkers, steel-smelters, and miners, and the complicated cotton lists, which together determine the wages of a third of the trade union world. And since, in all the above-mentioned trades, the standard rate is drawn up in the form of a schedule of piece-work prices, there can be no question of equal earnings.

Nor does the standard rate imply any equality of wages in industries in which it is a definite wage per hour, and not per piece.

The weekly pay of the workmen in these trades will be found to be very different even when they have worked the same length of time. For instance, a uniform rate per hour is paid for ordinary bricklaying, masonry, and plumbing, but it is to the advantage of the employer to pay a higher rate to any man engaged in work demanding special capacity—a course warmly supported by the trade union. Thus a rate from ten to fifty per cent over the standard is paid for such jobs as brick-cutting or "gauge work," furnace-building, or sewer construction, with the result that the superior bricklayer seldom works at the standard rate. In other trades the superior workman has the advantage of working under more agreeable conditions. In the case of a large building, the best stonemasons are appointed to do the carving, an occupation admitting some personal liberty and not needing great muscular exertion, whilst the ordinary workmen are setting stones under incessant supervision. Heavy mechanical tasks, such as laying down flooring, are given to the rough carpentering hands, leaving the superior workman to perform in the workshop the fine work combining variety and lightness when they are not earning extra rates for "staircasing" and "handrailing."

In short, the difference in the efforts and sacrifices actually made may be great, and therefore the rate of remuneration may be very different though the actual number of shillings received by the men at the end of the week are the same.

The standard rates which at the present time govern industries in the United Kingdom are of every degree of complexity, and include every form of "time" and "piece-work" wages.

If all the trade unions in the United Kingdom having over 1000 members, those of unskilled labourers and transport workers excepted, are classified according to the method of renumeration they enforce, we find there are 49 societies with 573,000 members which actually insist upon piece-work, 24 societies with 140,000 members which willingly accept in various departments both piece and time-work, and 38 societies with 290,000 members which insist upon time-work.

This divergence of view arises exclusively from the character of the operations performed. In those trades where piece-work is consistent with collective bargaining, that is, where the work is of such a nature that a standard list of prices can be compiled and is adhered to by the employers, the trade unionist willingly accepts or even actually enforces piece-work. Where, on the other hand, the work varies from job to job, and from man to man, a standard list is impossible, and piece-work becomes merely a reversion to the individual bargain, the trade unionists strenuously insist upon time-work rates. What they are aiming at in the one case as in the other is uniformity in the *rate* of remuneration for the work actually done. In some industries this can be maintained only by insisting on time wages. In others, covering, as it happens, a far larger number of organised workmen, time wages would produce just the opposite result, and the trade unionists accordingly insist with equal determination on payment by the piece.

[See *Industrial Democracy* by Sidney and Beatrice Webb (Longmans, London, 1898).—Reports of the Labour Department of the Board of Trade on Wages and Hours of Labour, 1894, pt. ii. (c. 7567, i.), "Standard Piece Rates," and pt. iii. (c. 7567, ii.) Standard Time Rates; also *Methods of Industrial Remuneration*, by D. F. Schloss (Williams and Norgate, London, 1891).—*The History of Trade Unionism*, by Sidney and Beatrice Webb (Longmans, 1894); and especially for a description of the experience of an exceptionally able employer, the *Life of William Denny*, by A. B. Bruce (London, 1889) and art. on W. DENNY.] S. and B. W.

STANDARDS, WARDEN OF THE. By the Standards of Weights, Measures, and Coinage Act 1866, the custody of the imperial standards of weights and measures was transferred from the office of the exchequer to the board of trade. For the purposes of the act a new department of the board was constituted, the head of which was styled the warden of the standards. It was his duty (1) to conduct comparisons, verifications, and operations with reference to the standards in aid of scientific research or otherwise when authorised or directed by the board, (2) to make an annual report to the board on the proceedings and business of the department to be laid before both Houses of Parliament.

The act was repealed by the Weights and Measures Act 1878, which declared that the board of trade should have all powers and perform all duties relative to the standards vested in or imposed upon the warden of the standards by the act of 1866 or otherwise. G. I. T.

STANNARIES. The name "stannaries" (*stannum*, tin) is an ancient legal designation embracing the whole of the tin mines of Devon and Cornwall. The mining industry being of pre-historic antiquity, was from very early times prosecuted in accordance with a code of customs which are described as "ancient" by the Black Book of the Exchequer of 1198. These customs were consolidated and enlarged by a charter of Edward I. (1305), which formed a precedent for other later mining charters. Labour was attracted to the mines by the privilege of enfranchisement granted to escaped serfs. Courts were established for the settlement of questions affecting their interests, with the exceptions customary in these local franchises of life, limb, and land. The connection of the stannaries with the princes of Wales began with a grant of 1337, which entitled the princes to draw royalties from them. It must be remembered that at that time tin mines were held to belong to the crown (MINES). The government of the

stannaries was immediately in the hands of a warden (*Custos*), who had the right of impressing labourers and compelling them to work for wages. Devon and Cornwall were each divided into stannary districts. To each district, called a stannary, belonged a civil court and a court-leet for trial of police offences. The revenues of the princes of Wales arose partly from coinage duty, partly from a right of pre-emption which was farmed. The coinage duty in Devon remained at 15s. 6d. a 1000 weight from the time of Henry III. until 1838, and for centuries at 40s. per 1000 weight in the case of Cornwall. Prices were settled at meetings of the tinners with the farmers convened at Crockentor twice in the year. These meetings were called great courts or parliaments. On these occasions the regulations were drawn up under which tin was to be worked, coined, etc. Representation at these parliaments was not to be confined to working tinners, but extended to capitalists interested in the development of the mines. In 1511 a collision occurred between the parliament of the tinners and the parliament of Westminster. Richard Strode, who sat for Plympton, one of the stannaries, introduced a bill into parliament to prevent the tinners silting up the Devonshire harbours with the detritus from their works. This was construed by the stannaries as an attack on their chartered franchises, for which Strode was presented at a stannary court, fined, and imprisoned in the castle of Lidford, assigned to them as a gaol by the grant of Edward I. This led to the passing of an act which first laid down the important constitutional principle that members of parliament were not liable to actions for proceedings by them in parliament (4 Hen. VIII. c. 8, *Pro Ricardo Strode*). But the nuisance continued until 1532, when parliament was aroused to action by the repeated complaints of the western ports. By the act 23 Hen. VIII. c. 8, stream works near the tributaries of rivers were prohibited, and all others were ordered to be provided with "hatches," to check the choking of water-courses. By this act the initiative in the suppression of the nuisance was left to the inhabitants, who shrank from legal conflicts with the neighbouring landowners, so that the statute remained inoperative. This led to another act (27 Hen. VIII. c. 23), passed in 1536, which increased the penalties and let in the common informer. The introduction of another bill into the House of Lords in 1539 is evidence that the difficulty was not at an end, but no further legislation took place until the time of Charles I. In 1632 a new charter was granted reaffirming the ancient privileges of the stannaries as to exemption from process in other than their own courts, from toll, and the concession of the right to search for tin. In 1640 an act was passed (16 Car. I. c. 15), to restrain the encroachments of the stannary courts, which were asserting a jurisdiction over the entire counties of Devon and Cornwall "out of the places where the tinners do work." In 1836 an act of parliament (6 & 7 Will. IV. c. 106), regulated anew the jurisdiction, constitution, and powers of the stannaries courts. By 18 Vict. c. 32, the respective parliaments or stannary courts of Cornwall and Devon, the customs of which presented a general similarity, were consolidated in one court. These customs are in short (1) the right of "free tinners" to work upon rendering a proportion called the "toll-tin," usually one-fifteenth of the produce, to the owner or lord of the soil. (2) The right to such tinners to "bound any unappropriated waste lands, or any several or inclosed lands which have been formerly waste land," subject to the custom and the delivery of toll-tin to the lord of the soil. The bound is marked by turf or stone, and is about an acre in extent. Particulars of the bound have to be returned to the stannary court. These bounds are in Cornwall accounted personal, in Devon real property. They must be annually renewed and may be sublet, subject to the payment of "farm-tin" or "tin-dues." The principal acts regulating the stannaries down to the year 1896, are the 6 & 7 Will. IV. c. 106; 11 & 12 Vict. c. 83; 18 & 19 Vict. c. 32; 25 & 26 Vict. c. 89; 32 & 33 Vict. c. 19; 50 & 51 Vict. c. 43; and 53 & 54 Vict. c. 63. These acts chiefly affected procedure. In 1896 an act was passed "for abolishing the Court of the Vice-Warden of the Stannaries" (59 & 60 Vict. c. 45). By this act the jurisdiction and powers of the stannary court were transferred to the county court sitting at Truro, the judicial office entitled the vice-wardenship of the stannaries being abolished. But it must be remembered that the foundation of the law of the stannaries still remains ancient custom and the charters which embodied it.

[Edward Smirke, *The case of Vice against Thomas, determined on appeal before the Lord Warden of the Stannaries of Cornwall*, London, 1843.—W. Bambridge, *Treatise on the Law of Mines and Minerals*, 4th ed. by A. Brown, London, 1878.—Rowe *v.* Brenton, 3 Manning and Ryland's Reports, Appendix of Documents relating to the Duchy of Cornwall.] L. S. L.

STAPLE, THE STAPLE SYSTEM. The company of merchants of the staple had a monopoly of exporting the staple commodities of England, and certain staple towns were appointed as centres of their trade. The staple exports were wool, woolfells, leather, tin, and lead, and of these the chief was wool, the "sovereign treasure" of England, wherewith she was said to keep the whole world warm. Before the reign of Edward I. the export trade of England was principally carried on by foreigners, of whom the most important were the Hanse merchants (see HANSEATIC LEAGUE). The

staplers asserted that their company dated from Henry III.'s reign, but at this time the exports were taken to various marts, chiefly in Flanders because the Flemish excelled in cloth-making (see MERCHANTS, ENGLISH). An association of English merchants was in existence as early as 1313, in which year Edward II. sent Richard Stury, "mayor of the merchants of our kingdom," as ambassador to the Count of Flanders. In order to concentrate the wool trade, Edward I. fixed the centre at Antwerp, which he bought from the duke of Brabant, and in 1313 Edward II., by letters patent, "pro certa stapula pro mercatoribus Anglie," ordered the mayor and community of the merchants of England to appoint a staple in the Low Countries; they might change the town at will, and were to fine to the king's use those who took staple wares to any other mart abroad. "The system of the staple was, it would seem, a combination of the principle of the guild and of the royal privilege of establishing fairs and markets" (Stubbs, ii. 447), (see FAIRS and MARKETS; GILDS; MARKET OVERT). It was necessary for mutual protection and for regulation of trade and prices that merchants should form a company, and it was also profitable to the king, as both increasing the customs revenue and facilitating its collection. Since the customs had been fixed, it had become necessary, for the better control of trade, to restrict the export of the staple commodities to certain English ports where collectors of customs were stationed, and Edward II. appointed home staples at Newcastle, York, Lincoln, Norwich, London, Winchester, Exeter, and Bristol in England; at Dublin, Drogheda, and Cork in Ireland; and at Shrewsbury, Carmarthen, and Cardiff in Wales. During the reigns of Edward III. and Richard II. the staple towns were frequently changed, foreign and home staples sometimes existing at the same time. The power of changing the staple town was useful as a political weapon, and also as a means of gaining the goodwill of foreign merchants from whom the king wished to borrow. In 1328, during the minority of Edward III., and again in 1334, all staples were abolished, and trade was free according to the Great Charter; but this free trade did not last, and the staple was fixed at Bruges in 1344. Bruges, Ghent, and Ypres were the three great marts for Flemish cloth, and were loath to let the coveted wool of England pass through their hands; accordingly, the Lombard, Brabant, and Spanish merchants were prevented from buying, that the Flemish towns might have a monopoly; this, together with the unsettled state of Flanders, lowered prices by lessening competition, and in 1353 the staple was withdrawn to England. The decay of feudalism had gradually made the king dependent on the produce of the land, rather than on the land itself. The toll, which was the king's prerogative of merchandise coming to or leaving his kingdom, had been definitely fixed in the customs, and was becoming increasingly important; with this the king paid his Lombard bankers, and with this, augmented by a yearly subsidy on wool, the French war was chiefly maintained. On the other hand, Edward II. made several attempts to collect the scutage levied by Edward I. for the Scotch war, and Edward III. issued a writ for the same hopeless purpose (see KNIGHT'S SERVICE). Profiting so little as feudal lord, the king turned his attention to the wool trade, from the development of which he and his subjects alike would gain, and in 1353 the Ordinance of the Staple was issued. This measure appointed ten staple towns in England, and to those not on the sea a port was assigned; these towns were Newcastle, York and Hull, Lincoln and Boston, Norwich and Yarmouth, Westminster, and London, Canterbury and Sandwich, Chichester, Winchester and Southampton, Exeter, and Bristol, in England; Dublin, Waterford, Drogheda, and Cork, in Ireland; Carmarthen, in Wales; also for tin, Asperton in Devonshire, Lostwythiel and Truro in Cornwall. The merchants of each staple town, both native and alien, were yearly to appoint a mayor and two constables. The weight of wool for export was to be certified by the mayor, and at the port it was to be again weighed, and an indenture of the weight made between the mayor and the customs officers. Export trade was restricted to aliens under pain of death, and altogether prohibited to Berwick and Scotland. Staple goods were to be taken to the staple towns for forty days, after which they could be sold elsewhere. Merchants were to be under the jurisdiction of the mayor of the staple only, according to LAW MERCHANT; aliens were to be tried by aliens; merchants were to use lodgings and warehouses, the rent of which was fixed by the mayor and constables of the staple and four leading inhabitants. At first, the offices of mayor of the town and mayor of the staple were held by different persons, but later in Bristol, Southampton, London, and probably elsewhere, the mayor of the town acted as mayor of the staple. In some Irish staple towns the mayor and bailiffs of the town became, for the following year, the mayor and constables of the staple. The appointment of home staples only was thought to be advantageous to England because it would break the monopoly of Flanders, and the consequent competition would raise the price of wool, while the foreign merchants would bring "money and plate, gold and silver, and merchandise of other lands"; and the increased revenue from the customs, which were heavier for aliens than denizens, would bring in larger supplies for the "arduis negociis," under which the king was continually groaning. But the

high duties, as well as the extensive smuggling which evaded them, prevented home staples from being successful, and in 1363 the staple was established at Calais. The taking of Calais, the nearest continental port and a home of pirates, was of great importance to the English export trade, and with short intervals, when it was removed to Flanders or to England during war with France, the staple remained there until 1558. The staple merchants paid no toll between Dover and Calais, they yearly chose a mayor and two constables, whose jurisdiction alone they were subject to, and the mayor was responsible for their lodgings in Calais. Like the Jews and the Lombards who had been under the king's protection and not answerable to the common law, the staplers lent large sums to the king, and in return he assigned to them a portion of the customs revenue; "riches follow the staple" became a proverb. Statutes were passed from time to time, protecting the staplers and the staple town. The cherished monopoly was in danger, not only from illicit traders, but from those whom, not being staplers, the king licensed to export wool. Petitions were presented against these licenses, until, in 1449, when the revenue from the Calais staple had fallen, since Edward III.'s time, from £68,000 yearly to £12,000, by means of frauds and licenses, it was enacted that all such licenses should be void, five only excepted. The staplers, by their "ordinance of partition," charged so highly on the wool sold at Calais, that there was much smuggling, the mint at Calais fell into decay, and the price of wool went down; therefore, it was ordained, in 1442, that wool should be sold only according to the form and at the price of the staple, and that a third part of the price should be taken in silver, coined at Calais, and brought by the merchants to England. Henry IV. granted a charter to the merchant adventurers (see ADVENTURERS, MERCHANTS) of England who dealt in cloth; and to the number of staplers, and especially to their dealings with this company, Armstrong, writing in the reign of Henry VIII., attributes all the evils of the time. The number of staplers so increased, he says, in Edward IV.'s time, "by meane of apprentishode withowt any consideracion of the welth of the holl reame" that "the merchants began to giff rewarde to fermours and to their wiffes to have wolle oon before another," and, in consequence, the cloth-makers suffered from want of material. So much wool was taken to Calais, that the buyers "perceyvid they shuld never lakk non, but have it soo plentuous which causid theym to forsake to pay redy money and bullion at the staple to bye it for respite," paying partly at the staple, partly at a mart in the Low Countries. This gave rise to a system of exchange with the merchant adventurers who traded largely in the Netherlands, and the staplers, instead of minting their money at Calais, and sending home the much-needed coin, received bills of exchange in London, payable abroad. So many staplers were there in London, that middlemen were employed, "and then," says Armstrong, "begane the rank myschyff and distruction of the holl reame." To supply enough wool, the farmers began "to putt ther erthe to idulnes," and four hundred or five hundred villages in the Midlands were destroyed in sixty years, the profits of the wool being spent in importing "artificiall thynges," with which England became "stuffid, storid, and pesterid," to the ruin of English handicrafts. Many merchants became exchangers, which is "pleyn usury." The inferior pasture of sheep who fed on sites of villages and off "rank, foggye, wild gresse," affected the quality of the wool, and Spanish wool, mixed with English in cloth-making, threatened the market of the latter. From this time the staplers were continually in disputes with foreign merchants and merchant adventurers, and could only sell their wool to the Flemings, in 1509, by taking all risks until delivery. In 1522, a treaty was made with the Emperor touching the price and weight of the staple wool. Many of the lodgings and warehouses in Calais, formerly used by staplers, stood empty, to the loss of the townsfolk, and the staplers complained to Wolsey of bad seasons, Spanish competition, and the evil ways of the foreigner; in consequence of a riot in the Calais garrison, who, during the Wars of the Roses, were not paid for eight years, the customs had been raised from 6s. 8d. to 40s. on a sack of wool, that their wages might be furnished by this branch of the revenue. The conversion of arable land into pasture had thrown many out of employment, and in 1515, to promote manufacture, commoners were forbidden to wear imported cloth, as, in 1337, it had been forbidden to all save the royal family. The decrease in the export of wool, and the loss of Calais in 1558, brought about the downfall of the staplers, though their liberties were preserved in later statutes regulating trade, and the staple was established for a short time at Bruges. From 1660 to 1787, the export of wool was entirely prohibited.

[C. Gross, *The Gild Merchant* (1890).—Stubbs, *Const. Hist.*, ii. (1880).—W. Cunningham, *The Growth of English Industry and Commerce* (1890).—H. Hall, *History of the Customs Revenue* (1885).—W. J. Ashley, *Introduction to English Economic History and Theory* (1888).—H. Hall and W. A. S. Hewins in *Social England*, vol. ii. (1894).—C. Armstrong, *Treatise concerning the Staple and the Commodities of the Realm* in R. Pauli, *Drei volkswirthschaftliche Denkschriften* (1878).—G. Burnet, *History of the Reformation*, collection of records, v. 109 (1865). — D. Macpherson, *Annals of Commerce* (1805).—H. R. F. Bourne, *English Merchants* (1886).—W. H.

Jones in *Wilts Arch. Mag.*, ix. (Aug. 1865).—Rhymer, *Fœdera* (1816).—*Statutes of the Realm* (Record Commission, 1810).] M. T. M.

STATE-AIDED PENSIONS. When in the last century methods of insurance were first introduced, several proposals were made in England for its adoption by the state, in the hope that by that means the poor might provide for themselves instead of coming on the parish (cp. Eden, *State of the Poor*, 1797). Similar motives have suggested the establishment of state insurance in most European countries during the last twenty years. In Germany and Denmark state-aided pensions have been provided. In Germany (cp. J. G. Brooks, *Compulsory Insurance*, Report of Commissioner of Labour, Washington, 1893), philosophic and economic theory, the philanthropic desire to equalise social conditions, the enfeeblement of voluntary associations by legislative interference, and the policy of neutralising socialism by legislation, combined to create a system of state insurance to provide for accidents, sickness, disability, and old age.

The German system of pensions applies to persons sixteen years of age who are wage-earners, employees with a salary of £100 or less, or small employers in certain trades. It is regulated by the disability (*Invalidät*) and old age insurance law of 1889. Disability is defined as such inability to work permanently or for a complete year as prevents the insurer from earning a third of his average wage reckoned according to certain definite principles. It does not depend on age, and is payable after five years' contributions. At the age of seventy, after thirty years' contributions, the insurer is entitled to a pension. The contribution-year is taken at forty-seven weeks. The contributions are graded in four classes (under 350 marks or £17·13 a year; 550 or £26·92; 850, or £41·61; and over 850 marks) according to the average annual remuneration of the insurer's calling. They are paid weekly by the purchase of stamps which, pasted on cards, serve also as vouchers. The employers are responsible for their payment. They amount according to the four classes to 14 pf. (1·84d.), 20 (2·35d.), 24 (2·82d.), and 30 (3·55d.). The annual allowances for disability amount respectively to £5·64; £6·08; £6·43; £6·89. The old-age pensions amount to £5·22; £6·60; £7·99; and £9·78 respectively. (For cases worked out see Brooks.) To women on marriage, and to widows and orphans, compensation for past payments is given. The insurance fund consists of (*a*) contributions (as above) from the employee; (*b*) equal contributions from the employer, and (*c*) 50 marks (£2·45) a year from the imperial exchequer for each pension. For the conduct of business there are thirty-one insurance offices with committees on which the government, the employers, and the employees are represented. There is also supervision by local committees (*Vertrauensmänner*). In 1895 the disability allowances amounted to £411,102, the pensions to £764,248; and on 31st December 1895, 110,377 persons were in receipt of the former, and 195,723 in receipt of the latter or 13 per thousand of the population over 70.

In Denmark, subject to certain restrictions, at the age of sixty persons are entitled to a pension if they cannot provide for themselves or those dependent on them. The communal authorities grant the pension and pay half the cost. The government pays the other half. On 1st January 1894, 46,581 or 210 per thousand of the population over 60, were thus assisted.

In England several schemes have been much discussed (cp. *Report of Royal Commission on the Aged Poor*, pp. lxix., cxv.); Canon Blackley's—compulsory payments between the ages of sixteen and twenty-one, and a pension of 4s. a week at sixty-five or seventy; Mr. Chamberlain's—5s. a week at sixty-five provided by a government bonus on voluntary payments; or under certain conditions by the doubling of working-class insurances by a government grant; Mr. Booth's—a pension of 5s. to all at the age of sixty-five, without contribution required; and Canon Fowle's—a government grant of 5s. a week to each member of a sound friendly society, coupled with the abolition of outdoor relief. These schemes have hitherto been set aside for the following amongst other reasons: (1) compulsion is unacceptable in England; (2) the aged for the next forty years or so would not benefit; (3) the friendly society movement would be hampered or brought eventually under direct government control—a very undesirable result; or (4) the cost is too great—in Mr. Booth's scheme at least £24,500,000 a year.

One or two of the arguments on the general question may be mentioned: (1) after the lapse of a certain time, as experience shows, state aid, and especially state maintenance, weakens individual energy very seriously. In Germany, of the very scanty average pension of 2s. 6d. a week, about two-thirds is paid by the state and the employer. Thus it is rather a special form of relief, than insurance, and unlike well-administered relief, it makes the bulk of the working class state-dependent. In England those in receipt of poor relief over sixty years of age number approximately only 137 per 1000 of the population of that age (cp. Denmark above). (2) There is no sufficient evidence that the large outlay is recouped to any substantial extent by reduction in expenditure on the poor. (3) The bargain considered as insurance is disadvantageous. Of males alive at sixteen only 52 per cent reach their sixtieth, only 34 per cent their seventieth year. A state bonus in these circumstances runs counter to social as well as individual interest. The working man is right to save or invest his money in such a way as to reap benefits earlier and to provide in part for old age indirectly. There are other better forms of insurance. (4) In working-class life, the family is the unit of obligation in this matter. State aid will do more harm in weakening it than good in subsidising individuals. (5) The state-aided pension will tend to relieve the trades unions of the payments now made to old members, and to promote a minimum working life at a maximum wage (cp. on points (4) and (5), *English Economic Journ.*, vol. v. p. 347, 1895.) State Pensions for Old Age were established in New Zealand in 1898.

[P. Bödiker, *Die Arbeiterversicherung in der europäischen Staaten*, Leipzig, 1885 (one-sided and insufficient as to England).—*Select Comm. on Nat. Provident Insurance*, 1885 (chiefly Blackley's scheme).—Maurice Block, *Les assurances ouvrières*, 1895.—G. S. Loch, *Old Age Pensions and Pauperism*, 1892.—J. A. Spender, *The State and Pensions in Old Age*, 1892 (French and German schemes). Prof. J. S. Nicholson, *Political Economy*, 1896. For England in last century, see Eden's *State of the Poor*, 1797.] C. S. L.

A Comm. (cp. *Report of the Comm. on Old Age Pensions*, 1898) recently reported on some of the above-mentioned schemes and others, disapproving of them on the ground of injurious interference with wages, with self-reliance, with self-government in Friendly Societies, etc.

STATE INSURANCE. INSURANCE, STATE.
STATE INTERFERENCE. GOVERNMENT REGULATION OF INDUSTRY.

STATE NOTES

[Rates of conversion: £=33 drachmai=$5=25 francs=12 guilders=11 gulden=25 lire=24 milreis=13⅓ pesos (Chile)=9½ roubles=15 rupees.]

STATE NOTES fall into three groups;—

(1) The EXCHEQUER BILL (*q.v.*) [6] [7] payable *in futuro*, affecting the loan market but not the currency; (2) coin-receipts,[8] which are never loans, and enter into, but, being fully covered, do not inflate the currency. They are usually issued where coin is difficult to transmit, or when, being at a premium, it is likely to be hoarded or exported, and Chile has been censured for neglecting this precaution while trying since 1. vi. 1895, to redeem its notes, then £2,209,425, but now almost extinguished. Instances are: Indian gold and silver currency notes, under acts of 1861 No. xix., 1871 No. iii., 1882 No. xx., 1890 No. xv., 1893 No. viii., and 1896 No. xxi., in so far as £6,666,666⅔ is exceeded [9]; Canadian Dominion gold notes in so far as £4,000,000, is exceeded [10]; U.S. gold certificates first issued 3. iii. 1863, now £7,756,434; and Russian gold notes issued [1] *e.g.* 1. viii. 1895. Similarly, Austria-Hungary deputed its bank to issue, against equal gold, silver coin or notes first up to £14,545,454, 9. vii. 1894; then up to £7,272,727, April 1898 [11]; these sums *plus* £6,545,456 silver coin are being used to redeem the state notes of 1866, which in 1894 were £28,363,636. These gold receipts, though only justifiable on local and temporary grounds, often become chronic; otherwise they are innocent. But Indian silver currency notes since 1893,[9] when the mint was closed to silver; Italian "buoni di cassa" for one and two lire, issued, 1894-95, against silver in place of similar bank notes, and now £4,400,000; U.S. Bland certificates of 28. ii. 1878 *et seq.*, now over £75,000,000 [6] and Sherman treasury notes of 14. vii. 1890 to 1. xi. 1893 [4] now over £22,900,000, being issued against a metal not the standard, present peculiar risks. Thus the Sherman notes are usually cashed in gold and reissued; except therefore when cashed for silver or for Bland certificates—which happened, 1891-97, at the rate of over £1,000,000 per ann.,—they have the same effect as indefinite issues of uncovered convertible paper. And there is the added risk that cover may fail through a fall in the market price of silver, and silver has fallen one half since the mint value of most silver coins was fixed, so that the earlier U.S. certificates are now only half covered, and all silver coin-receipts have degenerated into class 3 (*c*). The United States proposed, October 1897, that England should adopt the policy of silver coin-receipts, but England refused.

(3) The state note, in its narrowest sense, is a compromise between (1) and (2), and steals a loan from those who wish to use but not to lend money by adding to the currency. It creates chaos as well as loss, and therefore its initial mischief is incalculable, and finally either—like the *billets d'état* of the regency, the credit notes of the North American colonies, and the ASSIGNAT in the last century, and the notes of Louis Kossuth (1849) in the present century—it leads to repudiation, or it involves the very loan for which it was meant as a substitute. It is always either inconvertible legal tender, or non-interest bearing; sooner or later it always circulates at a discount, but its essence is that it is meant to be taken as money and not like (1) under a contract of loan; this being a question of fact, not of form. There are three chief varieties: (*a*) *Inconvertible notes.*—Brazil notes have been inconvertible since 1835, and now=£15,485,042. U.S. notes [3] [5] [8] for £90,000,000, under acts of 25. ii. 1862, 11. vi. 1862, and 3. iii. 1863, were, until 1. vii. 1863, fundable (but scarcely any were funded), and until 31. v. 1878 slowly redeemed: the gold premium, once 185 per cent, first vanished 1. i. 1879, when the state resumed cash payments, thus transferring these notes, then and now £69,336,203, to group (*c*). In Greece, state notes guaranteed by the banks and amounting to £606,060,[3] [4] and bank-notes issued on account of the state up to £2,242,424,[3] [4] will, if the estimates of the International Commission are realised, be redeemed next century at the rate of at least £30,303 per ann. until they belong to class (*c*). In 1866 Austria-Hungary took over bank notes for one and five gulden, and then replaced them by similar state notes [3] [4] [8]; their total value was £28,363,636. Until 1879 they were below par, and thereafter at or above par with silver, which was, 1879-92, the "limping standard" of Austria-Hungary; they were always at a discount with gold, and latterly of 16 per cent. The programme of 1892, now nearing completion (*vide supra*), is to make gold the standard and raise enough gold, less 16 per cent, to redeem these notes at face value. Some similar exclusively Austrian notes, now about £500,000, will be redeemed within a year.[11] Italian notes [3] [4] [8] for 5, 10, and 25 lire, worth £16,000,000, 31. xii. 1895, are meant to undergo a similar transformation, but are still in the chrysalis stage of bank notes taken over by the state, with inadequate metallic cover, and Italy has never taken the necessary preliminary step which Austria-Hungary, Russia, Chile, Japan, and Haiti have taken of saving or borrowing coin equal to their whole value; the loans of 1883 and 1894 were merely partial, and the surpluses on which the budget for 1898 relies are surely visionary. In addition to these notes, fractional notes and currency certificates exchangeable for them, aggravated their evil; all the fractional

notes have been lost, redeemed, or have disappeared, although in the United States they once aggregated £10,000,000. (*b*) *Interest-bearing notes.*—U.S. one and two year notes [2] [5] [7] of 3. iii. 1863, and three year notes [3] [5] [7] of 30. vi. 1864 for £53,200,000, substituted for the former,—are a cross between loan certificates and cash. Thus these were replaced by notes at interest; but a similar Austrian issue in 1849 was replaced in 1853 by Reichsschatzscheine [3] [6] [8] without interest for £12,181,818, and the latter by bank-notes borrowed at interest. (*c*) *Convertible demand-notes.*—These notes should be to the state what bank-notes are to a bank; but the state is a bad banker, because it has the law in its own hands, and therefore notes of this class are sure to degenerate into class (*a*) in times of stress. Thus U.S. demand-notes [2] [6] [8] of 17. vii. 1861, and 12. ii. 1862 for £12,000,000—said to be the first of their kind in the States but foreshadowed in 1843 by an issue for £170,000—became inconvertible after 28. xii. 1861, yet commanded almost as great a premium as gold down to their virtual withdrawal in 1863. Russian credit roubles [1] [2] [4] [8] are the successors of the old assignats; they were all but at par when convertible 1843-54 (cover ⅓th), and like the Austrian gulden at par with or above silver and below gold when inconvertible, 1854-96; they are now convertible into gold at ⅔rd the value of the former gold rouble; they equalled £77,447,690, 13. ix. 1897, and the redemption fund handed by the state to the bank was £62,500,000 and the state held over £19,000,000 more for this and other purposes. The U.S. notes of 1862-63 which since 1879 [2] [5] [8] belong to this class and are now £69,336,203 (about ⅓rd cover in gold), the German inperial notes for £6,000,000 (since 1890) [2] [6] [8] which in 1874 replaced various state issues, the Canadian notes up to £4,000,000 [2] [4] [8] [10] (⅗ths cover in gold [1]), and Indian notes up to £6,666,666⅔ [2] [4] [8] [9], and the Dutch notes for £850,000 [2] [4] [8] mentioned by Prof. Lexis—are exposed to a special risk, though they circulate at par. Being always in existence, though cashed again and again, they may at a critical time be used to drain the treasury reserves. Mr. Sec. Carlisle recently referred to the American notes—which must be reissued—as presenting an impossible task, and gold-loan after gold-loan has been raised to convert into gold what is often reconverted into silver. Mr. Sec. Gage proposed in December 1897 to change them into gold receipts.[2] These convertible, reconvertible, phœnix-like notes are really a mixed species half way between convertible and inconvertible notes, and cannot be defended on the analogy of bank-notes.

The latest schemes in Japan, Greece, and Haiti for redeeming the residue of their government paper, are too recent (1897) for criticism. Chilian, Brazilian, Italian, Austro-Hungarian, and Russian problems are complicated by bank issues to which we have not referred; nor have we referred to the difficulties of Argentina, Spain, and Portugal, which are exclusively referable to bank issues.

[R. Chalmers, *History of Currency in the British Colonies*, 1893 (a standard work, includes India).—C. F. Dunbar, "Safety of the legal tender note" in *Quarterly Journal of Economics*, April 1897 (a powerful indictment).—*The Economist*, *passim*.—France, Ministère des affaires étrangères, *Arrangement financier avec la Grèce, Travaux de la Commission Internationale*, 1898.—O. Haupt, *Monetary Question in 1892*;—*Indian Currency Report*, 1893.—J. J. Knox, *United States Notes*, 1885.—R. Koch, *Reichsgesetzgebung über Bank- und Münzwesen*, 1890.—K. Kramar, *Das Papiergeld in Oesterreich*, 1888.—A. N. Miklashewsky, "Monetary Reform in Russia," in *Journal of Economics*, 1896, p. 682.—United States, *Annual Mint Reports*.—A. Wagner, *Staatspapiergeld*, 1874, and in *Preussische Jahrbücher*, 1893, p. 262.—F. A. Walker, *Money*, 1878, pt. ii. (early history of North American notes, etc.).—H. P. Willis, "Monetary Reform in Russia" in *Journal of Pol. Econ.*, June 1897.—R. Zuckerkandl, "Die Währungsreform in Oesterreich-Ungarn" in *Handwörterbuch der Staatswissenschaften*, Supplement, 1895, *s.v.* Papiergeld; see also articles by Lexis and Ferraris in *Handwörterbuch der Staatswissenschaften*, and in Supplement, 1897, *s.v.* Banken, and Papiergeld.] J. D. R.

1 Since 1860 Russian state notes are issued by the bank which stands for this purpose to the government much as the "department of issue" stands to the Indian government.

2 Convertible. 3 Inconvertible. 4 Legal tender.
5 Legal tender except for customs.
6 Not legal tender except for state dues.
7 At interest. 8 Without interest.

9 Indian notes are given for gold and silver, all of which is retained by the treasury except £6,666,666⅔ which is invested. That limit was exceeded, in 1897, by £9,168,872.

10 Canadian issues up to £4,000,000 are guaranteed by ⅖ gold and ⅗ securities. Notes, if any, in excess of this limit are guaranteed by gold which the treasury retains, *Statutes of Canada*, 1895, c. 16.

11 We assume that the proposals of April 1898 will pass into law.

STATE SOCIALISM. See SOCIALISM, STATE.

STATES-GENERAL. See ÉTATS-GÉNÉRAUX.

STATICS, SOCIAL, AND SOCIAL DYNAMICS. Auguste Comte's mode of conceiving in terms of applied mathematics the essential factors of the social state, and the order of its evolution, have been already alluded to (*v.* COMTE, A., art. ii.). Under the head of social statics Comte set out a number of "social instincts"—sociability, benevolence, labour (of muscle and mind), family life and co-operative activity—the action and reaction, or equilibrating functioning of which results in what he termed "the spontaneous order of human society." Under social dynamics he treated of "the theory of the natural progress of human society," finding that the disturbances in social equilibrium made on the whole for improvement, and analysing this progressive tendency into the three stages, theological, metaphysical, and positive, now current as perhaps the most popular formula in his philosophy.

To political economy, even if classed as a branch of the inchoate science of sociology, these mechanical concepts have not in the way of method proved useful. Adopted for a time by writers who felt the inspiration of Comte's great co-ordinating vision, and applied with rhetorical laxity, they are already virtually superseded in economics by the more abstract generalisations of pure mathematics on the one hand, and the more concrete and therefore more cognate concepts of organic phenomena on the other. Herbert Spencer, it is true, adapted them to some extent, defining social

statics as treating of the equilibrium of a perfect society, and social dynamics, of the forces by which society is advanced towards perfection. Nevertheless they form in the economy of his thought a less effective scaffolding than the notion "social organism." In considering social philosophy under a statical and dynamical aspect, he claims to be dividing the subject as J. S. MILL, following Comte, divided political economy. Mill, however, though implicitly mindful of the analogy, only applies it, as an illustrative figure, at a late stage of the *Principles* (*v. infra*), and, in the two works where he does take account of that mechanical aspect is more concerned, in the one to criticise Comtism, in the other to formulate the logic of that historical method for social science where Comte's concept of social dynamics has really, if indirectly, proved fruitful in results. He is as little concerned as either Spencer or Comte to give more than (to use the latter's qualification) "an exploratory value" to the mechanical metaphor, or to waste himself in fitting a more abstract view of things to the *relatively* more concrete world of his hypothetical wealth-craving economic man. In this last-named abstract entity indeed, reacting to the "pressure" of his one desire, in so far as this is not neutralised by the opposing forces of dislike of work and of abstinence, Comte might have found, as BAGEHOT did, room for mechanical analogies. But it was precisely the hypothetical, or so-called "metaphysical" character of political economy, pursued half consciously half unconsciously by earlier economists, that turned Comte from that science.

The really fruitful result in Comte's method of letting the "simpler" concepts of mechanics play around the field of social phenomena lay in his two governing ideas of continuity and solidarity. The statical aspect showed him the elements of the social structure as an interrelated, interacting whole. And the true spirit of social dynamics, he held, "consists in conceiving of each consecutive social state as the necessary result of the preceding, and the indispensable mover of the following, according to the axiom of Leibnitz, etc." Thus far, then, a mathematician of genius inspired Comte. Probably not even the modern standpoint of regarding statics and kinetics as modes of dynamics would have led him farther, viz. to a more critical research into those apparently irreducible factors of that on which he bestowed the somewhat musty designation of "spontaneous order." For this it required advance in that historical method which he so earnestly prescribed, and in those biological inductions which, for him, were less dominated by "the master-thought of . . . the gradual development of humanity" than was his own social dynamics.

[Comte, *Positive Philosophy*, bk. vi. chs. iii. v. and vi.; cp. bk. i. ch. iv.—Spencer, *Social Statics* (1892), p. 229.—Mill, *Principles of Pol. Econ.*, bk. iv. ch. i.; *Auguste Comte and Positivism*, pp. 88-106; *Logic*, bk. vi. ch. ix. and x.—Bagehot, *Economic Studies*, pp. 73-77.] C. A. F.

STATIONARY STATE. Adam Smith mentioned the "stationary state," describing it as the state in which a country had "that full complement of riches which the nature of its laws and institutions permits it to acquire" (*Wealth of Nations*, bk. i. ch. viii.; in bk. i. ch. ix. the "full complement" is said to be determined by "the nature of its soil and climate"). China is several times referred to as being in the stationary state; Holland is really stationary; Bengal is even "decaying." In the stationary state, as described by Adam Smith, wages are low; it is only in countries which progress rapidly that wages are high. Profits also are low. Adam Smith said nothing as to rent in the stationary state, but it was an easy step for his followers to proceed to say that rent was high. James Mill simply followed the hints in the *Wealth of Nations*, when in *Commerce Defended* (1807) he remarked that in a stationary country wages are at "the lowest rate which is consistent with common humanity" (ch. vi. p. 87). Ricardo, while he did not mention the stationary state in so many words, yet made the conception more definite. The stationary state virtually is that in which profits are just high enough to make the "trouble" and "risk" of "accumulation" worth while. Wages in any case are fixed, being the natural or necessary wages which habit and custom fix for the labourers. With the progress of society and the resort to poorer soils, profits fall and rents rise until profits are at the minimum which just suffices to maintain accumulation. But when "the very low rate of profits will have arrested all accumulation" (Ricardo's *Works*, p. 67), "almost the whole produce of the country, after paying the labourers," will go to the landowners. This was certainly considered by Ricardo a deplorable situation, and was expressly so described by his contemporaries, and especially by M'Culloch. For writers of the school of M'Culloch wages were "naturally" low, and high profits were "the real barometer, the true and infallible criterion of national prosperity"; hence any approach to a stationary state in which profits were at the minimum was an evil. Some protest against this point of view was raised by Chalmers (*Political Economy*, vol. i. p. 43, vol. ii. p. 133) who pointed out that wages might be kept high "by the moral preventive check" even in "the ultimate stages of the wealth of a country." J. S. Mill finally protested eloquently against the notion that the stationary state was to be looked forward to with aversion (*Political Economy*, bk. iv. ch. vi.). Indeed, he wished the progress of society to relax before the utmost limit

had been approached, pleading in noble language for the enjoyment of solitude and of the beauties of nature, for mental culture, and for moral and social progress. With later writers, the discussion of a stationary state has ceased. The assumptions of an inevitably low, or at least fixed, rate of natural wages, and of a stage when accumulation would cease, which dominated the reasoning of the followers of Ricardo, have been shaken by the experience of a gradual and steady advance in wages, and by an extraordinary and uninterrupted accumulation of capital; while the rapid progress of the arts has lessened the likelihood of any approach to a really stationary state. Hence the topic hardly appears in recent books on political economy. A writer like Roscher, imbued with the historical spirit, refers to "flourishing" and "declining" states of society (thus with reference to wages, to population, to luxury; *Politische Oekonomie*, §§ 171, 225, 244); but a clearly-defined stationary state is not deemed worth mention, even in a historical sketch of population. Professor Marshall, again, uses the conception of a stationary state, not as indicating a stage which society will certainly or even probably reach, but as a means of reasoning hypothetically on permanent tendencies in the distribution of wealth. "The hypothesis of a stationary state is useful to illustrate many points in economics; but it is the nature of such hypotheses to be treacherous guides if pursued far away from their starting-points" (*Principles of Economics*, bk. v. ch. xi. 2nd and 3rd editions). In one sense, France may be said to present the case of a country that has in fact reached the stationary state. The population of France, after having advanced at a fairly steady though gradually slackening rate through the greater part of the 19th century (setting aside changes from gain or loss of territory), has become practically stationary since 1886. The census figures for the population of France were 38,218,903 in 1886; 38,342,948 in 1891; 38,517,975 in 1896. But industrial progress has continued in France; wealth has augmented, capital has increased, wages have tended to rise, cities have gained in numbers, the country districts have lost, so that the stationary state, in the sense in which the older economists understood it, has not been reached (POPULATION, ECONOMIC THEORY).

F. W. T.

STATISTICS

Statistical method, p. 467; Statistics, p. 469.

STATISTICAL METHOD in its common acceptation consists in the study of social phenomena which can be counted or expressed in figures.[1] The ways in which the observations are made, and the mode of analysis, so that they may yield facts for social science, have been examined in the article METHOD OF POLITICAL ECONOMY.

The material is either population, the number of people, number of births, deaths, marriages, blind, paupers, criminals, or facts connected with the population—*e.g.* prices of commodities, wages of labour, distribution of wealth, amount of bank notes, etc.

Observations are of two kinds—either enumeratory at a particular time, like a census, an agricultural *enquête*, a German *Gewerbezählung*; or continuously enumeratory, like registration of births, deaths, and marriages.

The way in which the observations are made comprises the technique of statistics. The first step is collecting the statistics. This is a matter not only of administrative skill, but also of scientific judgment. We cannot gather statistics of all social phenomena. Some are incapable of measurement; others would not repay the effort. We must make a choice and gather those that are of most importance. As a matter of fact, statistics are collected mostly through governmental agency, and those are gathered which are of administrative interest, such as the amount of exports and imports, or those which can be easily obtained in connection with administrative activity, such as the statistics of crime. In modern times the statistical activity of governments has been extended to investigations of simply social or scientific interest, such as births, deaths, and marriages, occupations, wages, etc. Thereby extended, the statistical method becomes a most important instrument of investigation in the social sciences.

The statistical method reaches its limits owing to the difficulties of classification. When population is studied statistically, it is divided into groups, all the members of which, while differing in many particulars, have one common characteristic. Classification fails either because the characteristic is not sharply enough defined, or because it depends upon the testimony of individuals whose statements cannot be controlled. Classification by age, sex, and conjugal condition is elementary, and not difficult. Classification by nationality or race is possible on the basis of place of birth, because that is definite and generally known; on the basis of political allegiance it is false; on the basis of blood or physical characteristics or language it is indefinite. For instance, the great mass of Prussians are German on the basis of language, but if we take into consideration physical characteristics, only 35 per cent of the population is pure German, *i.e.* German in speech and blonde in type; 24 per cent is principally German, *i.e.* German in speech, but mixed in type—blonde hair and grey eyes; and 28 per cent is German in speech, but partly slavic or romance in type—dark hair and grey

[1] Levasseur, "La statistique est l'étude numérique des faits sociaux." Lexis, "Die Statistik ist die zahlenmässige, Untersuchung des gesellschaftlichen Menschenlebens."

eyes (*Zeitschrift des Preussischen statistischen Bureaus*, 1893, p. 199). In the United States census of 1890, they tried to ascertain the number of persons of pure and mixed African blood by distinguishing blacks, mulattos, quadroons, and octaroons. But no physical distinction is always to be depended upon, and the persons themselves were ignorant of their genealogy, so that the attempt was a failure. In these cases the characteristic was not definite enough to permit trustworthy classification.

Classification of the population according to wealth or income fails because direct inquiries will not be answered truthfully, and outward marks fail. Even such a question as whether one is employer, employee, or working on one's own account was imperfectly answered in the English census of 1891, either because it was misunderstood or through perverseness. It is said that questions in regard to religious denominations excite suspicion in France; and questions in regard to mental or physical infirmity of members of the family excited considerable feeling in the United States in 1890. Difficulties of classification occur also in occupation statistics, in regard to degrees of infirmity (blind or partly blind), degree of illiteracy, wages, etc.

The practical statistician attempts to overcome these difficulties by making his schedule as simple and the questions as direct and unequivocal as possible, and by arranging the questions so that the answer to one will control more or less the answer to another. In some cases it is better to take a portion of the class rather than the whole class, *e.g.* wages from the pay-rolls of large establishments rather than from individual returns by all workmen. Again, one set of statistics will sometimes control another, as the ages of very young children may be ascertained more accurately from birth and death statistics than from the returns of parents, who often simply give the age to the nearest year. Finally, where it is impossible to reach a classification directly, some symptom or neighbouring circumstance may be used, as the number of persons to a room or a house, or keeping or not keeping a servant, may indicate social class or economic well-being (cp. Ch. Booth, *Life and Labour in London*).

The second step in statistical method is tabulation and analysis of the returns. Summing up the figures in each class gives us of course the absolute numbers. For the purpose of analysis and comparison these numbers may be expressed as proportions, rates, and averages, *e.g.* the population of the United States consists of 85·33 per cent native-born, and 14·77 per cent foreign-born; or of 87·8 per cent white and 12·2 coloured. A rate is the proportion between a number of events occurring in a year and the total population or some portion of the population immediately connected with the event. It is generally expressed in decimal form. Thus a birth-rate would be expressed by saying there are 25 births for 1000 of the population. It might be expressed by saying 1 birth for every 40 of the population. The former method is generally preferred. The suicide rate in England is 80 per 1,000,000. Sometimes a fraction of the population is taken, as in France there are 171 legitimate births to 1000 married women under the age of fifty. In England (in 1891) there were 8314 males employed per 10,000 males of and above ten years of age, and 3442 females employed per 10,000 females of and above ten years of age.

A *per capita* proportion is sometimes used in statistics, for instance dividing the total amount of tea consumed in any given country by the number of inhabitants, we get the *per capita* consumption; or dividing the total wealth by the number of inhabitants, we get the *per capita* wealth.

Finally we have the *average* or mean, which represents an intermediate value of a number of quantities, *e.g.* average wages, average birth-rate, etc. (cp. AVERAGE; MEANS, METHOD OF).

The average is of inestimable use in statistics. It is the short expression for a long series, and hence can be used for purposes of comparison, *e.g.* the average marriage-rate in France and Germany for twenty years. Some averages or means are more than this—they are the middle value about which the variations tend to concentrate, as the average stature of recruits. In that case, the average is said to be typical.

There are two common misuses of the average in statistical work. The first is averaging quantities which are not similar. Thus we often have an average wages of men, women, and children, which shows us nothing either in respect to wages as income or wages as labour-cost (cp. WAGES IN UNITED STATES OF AMERICA). Such an average is not typical. Again, averages are drawn from too small a number of cases, so that any variation may be purely accidental. The mathematical method of determining whether a variation is accidental or due to cause, is explained under the article ERROR, LAW OF (see further Edgeworth, *Statistical Methods*, in jubilee volume of London Statistical Society).

The third step in statistical method is to compare the statistics of one social phenomenon with those of another, in order to discover if there be any relation between the two. These relations may display themselves either in space or time, *e.g.* high death-rates in urban communities; hard times and an increase of crimes against property. This is simply the method of concomitant variations (see art. METHOD OF POLITICAL ECONOMY, vol. ii. p. 745). In the complexity of social phenomena many causes are bound together, and there is always danger of attributing to one cause an effect due to

another. Crime, for instance, is more frequent among the foreign-born population of the United States than among the native-born. But if we take account of the larger proportion of adult males among the foreign-born, we shall suspect that the greater criminality is due as much to the sex and age proportion as to the nationality.

If we could really isolate any single cause, the statistical method would enable us to measure its intensity. How much is bad economic condition responsible for the increase of crime? This is a matter of greater refinement of method which is sometimes possible but is more often impossible. Bad economic condition increases crime, but is very seldom of such importance that a variation in it results in a proportionate variation in the amount of crime.

The statistical method, therefore, gives us quantitative measurements of social phenomena. It reveals to us certain relations which are more or less constant. Some of these are merely the expression of a fact whose cause we do not know, *e.g.* the constant excess of male over female births. Others are the expression of a relation which remains constant so long as circumstances remain about the same, as that the rate of suicide in England is 80 per 1,000,000 inhabitants. Others are expressions of variations which are put into the form of cause and effect, *e.g.* that economic condition is a cause of crime. The expression of these relations is sometimes called a statistical or sociological law. In regard to these so-called laws, it is only necessary to remark (1) that they are merely empirical laws of no high degree of validity—simple regularities that may be easily affected in a great variety of ways. Suicide is influenced not only by economic condition, but by social opinion, religious belief, external hindrances, etc., so that the number varies from year to year. (2) That the regularities of the mass have no compelling force over the individual. That the rate of suicide in England remains constant from year to year, does not mean that I am in any more danger of committing suicide than if the rate fluctuated capriciously. (3) This last affirmation means that statistics do not affect the doctrine of the freedom of the human will. They only show that social actions are controlled often and demonstrably by certain great and general influences. These things are sometimes forgotten when we speak of the inevitableness of social laws, of the responsibility of society for the crimes committed in its bosom, of the budget that must be paid, the budget of the galleys, the scaffold, and the prison (see article on STATISTICS).

[Von Mayr, *Statistik und Gesellschaftslehre*, Erster Band: *Theoretische Statistik.*—Meitzen, *Geschichte, Theorie, und Technik der Statistik.*—Westergaard, *Die Grundzüge der Theorie der Statistik.*—Von John, *Geschichte der Statistik.*—Rümelin, *Reden und Aufsätze*, vol. i. p. 208, *Zur Theorie der Statistik.*—Lexis, article "Statistik" in *Handwörterbuch der Staatswissenschaften.*—Bertillon, *Cours élémentaire de Statistique.*—Levasseur, *La Population Française.*—Edgeworth, *Statistical Methods*, in Jubilee Volume of Statistical Society.—Venn, *The Logic of Chance.*—Keynes, *The Scope and Method of Political Economy.*—Mayo-Smith, *Statistics and Sociology.*] R. M.-S.

STATISTICS. In view of the fact that it is still unsettled whether statistics is more properly a science of things or a science of method, the term may be held to cover both fields. As a science of method it is treated in the article STATISTICAL METHOD (*q.v.*). Even as a science of things, however, controversy is not slight as to its precise content, whether it be concerned only with the examination of the conditions, past and present, of different states and peoples, and the best modes of securing knowledge in this field; whether the facts with which it is concerned are limited to those which permit of presentation in numerical form; or whether facts presentable in such form, no matter to what branch of knowledge they relate, are to be considered within its scope. It is certain that workers of great eminence have not been contented to limit the scope of statistical investigation to the facts of human societies, while very valuable additions to knowledge have been made by the statement and description of conditions which were not susceptible of any accurate measurement for precise comparison with cognate facts.

In any branch of statistical investigation which deals with human beings, and matters in which they are concerned, the observation of a numerous aggregate of cases, grouped together on account of similarity in some condition of importance in connection with the subject of investigation, is necessary. Individual cases show considerable differences in the intensity of any characteristic possessed by them; but in a numerous aggregate it frequently happens that the degree of irregularity is not so great but that some type can be determined to which all more or less approximate. The determination of the type and of the extent and frequency of variations from it are important problems. The comparison of the measurements corresponding to the type derived from different aggregates is one of the most useful of the applications of statistical knowledge. The aggregates may differ either in the time or in the place at which they are observed, or in both. Country and country, time and time, may be compared by comparison of the tabulated measurements of the characteristic in question, and the progress of different countries over any selected periods may also be compared. The GRAPHIC METHOD (*q.v.*) is one of great utility for the effective carrying out of such comparisons.

The comparison of various phenomena which are symptomatic of the moral condition of the aggregate under examination is of more than merely scientific interest, inasmuch as it may point the way to an advantageous modification of the influences of which the symptom in question serves as a measure. In this connection it should be remarked that the regularity manifested by some phenomena of this class has been incorrectly interpreted as indicating a lack of free-will on the part of individuals. The steadiness of the number of crimes in proportion to population has impressed some observers with the idea that the criminal is a victim of some evil necessity for which he is not personally responsible. A closer and wider investigation of facts is sufficient to demonstrate that criminality is dependent on human character, and is only constant under conditions which imply constancy in the moral tone of the aggregate under examination. In any case the regularity in the aggregate implies no compulsion on any individual. As above pointed out, careful research into related phenomena may reveal the appropriate means for introducing beneficent modifying influences to diminish criminality. A connected subject is that of forecasting the future from observations of the past. The observed regularities in statistical phenomena can only be expected to continue on the hypothesis that the producing causes, of the operation of which the observed phenomena are symptoms, continue to operate in equal intensity in future.

In all statistical enquiries having as their object the determination of a type which may be representative of the aggregate to which the enquiry refers, it is of importance that the characteristics of the aggregate should not be lost by including under the one aggregate two or more groups of essentially different characters. Recently Professor Karl Pearson has shown how, in certain cases, the observations relating to such separate groups may be sufficiently disentangled to permit of studying the results separately, by the application of a suitable principle in dealing with the numerical observations when the separation of the groups themselves, before making the observations, is not open to the investigator (cp. *Phil. Trans.*, 1894 and 1895).

[For the history of the progress of statistical science reference may be made to Meitzen, *Geschichte, Theorie und Technik der Statistik*, and for a statement of the development of official statistics and their present position, to the articles, chiefly by Dr. E. Mischler, "Die amtliche Statistik in den einzelnen Staaten" in Conrad's *Handwörterbuch;* also to the works mentioned in the article on STATISTICAL METHOD, to the address by Sir Rawson Rawson and the papers by Dr. Mouat and Mr. Guy in the Jubilee volume of the Royal Statistical Society and the presidential address to the same society by Mr. J. B. Martin in the *Journal* for 1896, and to Dr. Jacques Bertillon, *Cours élémentaire de Statistique*. For first use of term, see ACHENWALL, G. There are several very useful compilations of comparative statistics, among which that of Dr. von Juraschek, *Geographisch-statistische Tabellen*, is very compact and includes much of general utility in its annual issues. The elaborate bibliographies of various subjects attached to the chapters of Dr. von Mayr's *Statistik- und Gesellschaftslehre* may be referred to for information as to the extensive literature under special heads. W. F. Sheppard "On the Geometrical Treatment of the 'Normal Curve' of Statistics" in the *Proceedings of the Royal Society*, vol. lxii. number 381, p. 170, 1897.] A. W. F.

STATUTE OF MERCHANTS. This measure, recognised as law in 1285, possesses a two-fold importance, the one in the history of constitutional, the other in that of commercial law. It was really an ordinance put forth by the king and council at Acton Burnell in 1283 in the presence of deputies from the towns, owing to which last circumstance it acquired the authority of a parliamentary statute. Commercially it was of importance as being designed to facilitate the recovery of debts. The machinery for creating a "contract of record," which is the legal definition of the statute merchant, had before the accession of Edward I. been by way of recognisance. This procedure, which took place in the king's court, was afflicted with "the law's delay" (stat. merc. 13 Ed. I. c. 6), to remedy which the new measure was enacted. It was probably borrowed at the instance of foreign merchants, as the preamble of the act discloses, from the debt book (*Schuldbuch*) of Hamburg, Riga, and other continental towns. The expository re-enactment in 1285 of the ordinance of 1283 recites the "malice and false interpretation" of the sheriffs as its justification, an evidence that the law had influential opponents. The original ordinance of 1283 provided that a debtor should appear with his creditor before the mayor of London, Hull, or Bristol, make acknowledgment of his debt and of the day of payment, and witness with his seal the entry of this acknowledgment or recognisance by a clerk upon a bill obligatory (*escrit de obligacion*) sealed with the king's seal. This bill was transcribed on to a roll in the custody of the mayor. On the day of payment due the creditor was entitled to present his bill to the mayor, and on its verification by the roll, the mayor was empowered to cause the movables of the debtor to be sold to the amount of the debt or in default of a purchaser to be delivered to the creditor at a reasonable price. The king's seal conveyed a title to the purchaser. In default of movables within the mayor's jurisdiction, the recognisance might be certified into chancery, and any sheriff on receiving a writ from the chancellor was authorised to seize and sell the debtor's

movables within his jurisdiction. In default of goods, the person of the debtor might be seized and imprisoned at the creditor's expense for bread and water, which expense was added to the debt. If the creditor were a merchant stranger the debtor's goods might further be charged with the expenses occasioned by detention in England. Sureties were permitted, subject to the same penalties as the principal debtor. In 1285 this was modified by the provision that the creditor might procure the arrest of the debtor's person immediately upon default, and a compulsory sale of the debtor's chattels was legal only after the interval of two quarters of a year, within which time the imprisoned debtor was at liberty to order the sale himself. This charge, while improving the security of the creditor, was also in a measure favourable to the debtor as facilitating a profitable realisation of assets (see LAW MERCHANT). The statute was also extended to all fairs (see FAIRS AND MARKETS; MEDIÆVAL FAIRS on the Continent). Another provision shows that the use of the ordinance had been enlarged to secure debts due from English landowners; for the merchant creditor became entitled to an assignment of the debtor's lands, and therewith to the rights incident to a freehold such as the writ of Novel Disseisin, to protect his possession, and this even against the debtor's heir. It is evident that these changes gave great offence to the landed gentry, for in 1311 the lords "ordainers" procured, among the ordinances of that year, a prohibition of the extension of the statute of merchants to parties other than merchants, and of seizures under it to other lands than burgages, *i.e.* lands in towns holden at a rent. At the same time the statute was excluded from fairs where it interfered with the seignorial rights, but extended to the towns of Newcastle, Nottingham, Exeter, Southampton, Lincoln, Northampton, Canterbury, Shrewsbury, and Norwich. The procedure under the statute of merchants which went by the name of a "statute merchant" became, at a later date, practically indistinguishable from that of a "statute staple" (see STAPLE). The statute merchant is described by Tomlins's *Law Dictionary*, ed. 1835, as "one of the common assurances of the kingdom." The act of 1285 was repealed by the Statute Law Revision Act 1863.

[D. Macpherson, *Annals of Commerce*, London, 1805, i. 439, 441.—*Statutes of the Realm*, 1810, i. 53, 98, 165, 285.—T. E. Tomlins, *Law Dictionary*, London, 1835 (4th. ed.), (*s.v.*).—G. Schanz, *Englische Handelspolitik*, Leipzig, 1881, i. 389, 542.—W. Stubbs, *Const. Hist. of England*, Oxford, 1877, ii. 116, 330. *Chronological Table of Statutes*, London, 1890, p. 14.—Pollock and Maitland, *Hist. Eng. Law*, Cambridge, 1895, ii. 202.]

I. S. L.

STATUTE OF MERTON. See MERTON, THE STATUTE OF.

STATUTUM MERCATORUM. See STATUTE OF MERCHANTS and LAW MERCHANT.

STEELBOW TENANTS (Scotland) were farmers, receiving from the landowner a certain quantity of stock, corn, straw, and implements with the land. These "steelbow goods" had to be returned in kind at the end of the lease. The system arose at the beginning of the 14th century. Villeinage was falling into decay, and the new class of free tenants had not enough capital of their own to stock their farms without aid from the landowner.

Similar circumstances in England produced the same results in the "stock and land" leases, which appeared after the Black Death. Adam Smith mentions the survival of this tenure in the Highlands, and compares it with the metayer system of France (see METAYAGE). He complains that the great share the landowner took of the farm produce—one half—must be a great hindrance to improvement of the land.

No tenant would take the trouble, risk, and expense of improvements, of which he did not reap the whole benefit. Moreover, the landowner's cattle were used too much for carriage and other outside purposes, the profits of which were not shared with the landowner.

L. R. H.

STEELYARD, THE, was the establishment in London of the EASTERLINGS, the German merchants belonging to the Teutonic HANSE.

It was situated on the north bank of the Thames, a short distance to the west of London Bridge; occupying, in fact, part of the site of the present Cannon Street railway station. It formed a parallelogram, somewhat less than 200 feet wide along the river, with a depth twice as great back to Thames Street; it included, besides wharves, warehouses, and residences, a stately hall adorned by Holbein with allegorical representations of the Triumph of Riches and the Triumph of Poverty; and the whole was enclosed on the three landward sides by strong walls. That such defences were necessary is shown by the events of 1493, when a London mob burst in and pillaged the warehouses and chambers. After the expulsion of the Hanseatic merchants from England in 1598, the land and buildings remained the property of the League, and were let to German and other merchants for business purposes. Even when the old edifices were burnt down in the great fire of 1666, it was thought well to replace them by new warehouses, which continued to belong to the Hanseatic cities, Lübeck, Bremen, and Hamburg, until the property was sold to a railway company in 1852. There were similar though smaller establishments at Boston and Lynn, known by the same name.

[The one great authority is J. M. Lappenberg, *Urkundliche Geschichte des hansischen Stahlhofes zu London*, Hamburg, 1851, where will be found the most minute and intricate details of the history of the several buildings. Based upon this is the popular article on "The Hanseatic Steelyard in

London" in R. Pauli, *Pictures of Old England*, Eng. trans. 1861. The origin of the name and of the German equivalent *Stahlhof* is uncertain; with the older explanations in Lappenberg pp. 70, 174, compare the more recent in the *Century Dictionary* (*s.v.*). Pictures and plans of the Steelyard are given at the end of Lappenberg, and in Herbert, *Livery Companies*, vol. i. ch. ii.—where, however, there are some gross mistakes in the identification. Of the account, probably somewhat idealised, given by Werdenhagen, *De rebuspublicis Hanseaticis*, 1641, of the quasi-monastic or collegiate regulations for the daily life of the residents, an abridgement will also be found in Herbert (*u.s.*). Stow, *Survey of London*, 1598 (in ed. Morley, 1890, p. 233) gives a list of Hanseatic imports, and of the buildings in his time. The most recent account of the last days of the Hanse in England is that of Richard Ehrenberg, *Hamburg und England im Zeitalter der Königin Elizabeth*, Jena, 1896] (see HANSE OF LONDON; HANSE TOWNS; HANSEATIC LEAGUE). W. J. A.

STEIN, HEINRICH FRIEDRICH KARL, FREIHERR VOM (1757-1831), was by birth an imperial knight, sovereign in his own territories, and owing no allegiance to any one but the emperor. In 1773 he went to Göttingen, then the great centre of juristic and political teaching, where he studied law, and, in an extra-academic way, English history, politics, and political economy. He became well acquainted with the work of Adam Smith, and adopted his doctrines, diverging from him only in points on which, as statesman, German, and man of the 19th century, he was led to modify his views. In 1777 he left the university and travelled in Germany for about three years. In 1780 he entered the service of Frederick the Great in the department of mining, and, four years later, was appointed director of the Westphalian mines. Nor was he unfitted for the position; Alexander von HUMBOLDT declared him to be one of the men of his time best acquainted with metallurgy. In 1784 he was employed on a mission to induce the elector of Mainz to join the league of princes which Frederick was forming to oppose the designs of Joseph II. in relation to South Germany; in this mission he was successful. In 1786-87 he made a mineralogical and technical visit to England. Declining diplomatic appointments which were offered to him, he was made a director of the war-and-domains chambers of Cleves and Hamm, and became in 1796 supreme president of all the chambers in Westphalia, where he introduced the system of road-making without corvées. He was employed in the transfer to Prussia of the dominions of the Westphalian bishoprics in accordance with the principal resolution of the imperial deputation in 1802, and performed the task with great judgment and forbearance. In 1804 he became Prussian minister of state, with the charge of customs, excise, trade, and manufactures—an office which he carried on with his accustomed vigour and industry. His most important achievement in this position was the abolition of provincial customs, or, in other words, the establishment of free trade within the Prussian dominions (December 1805). He was by nature a practical economist, and, up to the time of the Prussian catastrophe, he had devoted himself to the conduct of the national industry and finance exclusively. But the circumstances of his country inspired him with a war policy. Objecting to a man so able and patriotic as HARDENBERG being passed over by the king at a critical period, as well as to the maintenance of a personal cabinet distinct from the ministry, he asked for and obtained his dismissal in January 1807. He was recalled in the same year, and remained in office for thirteen months. His immediate task was to bring the French occupation to an end by paying the indemnity; his further task was the civil reorganisation of Prussia, as Scharnhorst was charged with the military. He now carried out in conjunction with Hardenberg the great peaceful revolution—for such it deserves to be called—usually designated the Stein-Hardenberg legislation. In September 1808 Napoleon intercepted a letter of Stein's which revealed his anti-French designs, and at the same time the king refused to adopt the minister's warlike policy, whilst the French party among the *noblesse* caballed against him. Accordingly in the November of that year he resigned office. He drew up in his retirement a political testament, from which, as well as from other manifestos of his, we gather that, besides the economic, administrative, and municipal reforms already effected or at least matured in conception, he contemplated the abolition of hereditary jurisdictions, a reform of the nobility, an ecclesiastical and educational reform, and the introduction of some sort of parliamentary system.

Having taken a leading part in the reconstruction of Prussia, he became, after an interval of forced quietude, the principal author of the liberation of Germany. In December 1808, Napoleon issued a decree of proscription against him, and he retired first to Bohemia and Moravia, afterwards by invitation of the emperor Alexander to Russia, becoming for years his chief adviser, especially on German affairs. He accompanied the Russian army in its march to Prussia, and was usually at the headquarters of the allies till they entered France. When the central administration for the government of the recovered provinces was formed, Stein was made a member of it, and, on its reconstitution after the battle of Leipzig, he was placed at its head. He was a strong advocate of the displacement of Napoleon and the restoration of the Bourbons—which latter

seems, indeed, to have been the only possible policy at the time. He was invited by Metternich to preside in the diet of the new confederation, and by Hardenberg to act as representative of Prussia in that body, but declined these offers. He took, however, some part in local government, presiding over the provincial estates of Westphalia during three of their sessions. The king appointed him a member of the council of state in 1827. He spent much of his later years in organising a society for the publication of the original materials of German history—a project realised in Pertz's *Monumenta*.

Stein had great moral elevation and a massive grandeur of character, and is altogether an impressive and imposing figure. There is much about him that reminds us of TURGOT. He had, no doubt, his defects, amongst which was a somewhat narrow Germanism, which however probably aided him in the discharge of his historic office by giving him the necessary concentration and intensity. He was not without aristocratic prejudices, and was only imperfectly imbued with the modern spirit. But he was a great man and did a great work; and not only Germany but Europe should hold his memory in everlasting honour.

The principal feature of the Stein-Hardenberg legislation was the abolition of serfdom. But it must not be supposed that the two ministers whose names are peculiarly associated with it were alone in advocating or planning the emancipation edict. Frederick William III. had always had such a measure at heart; it was thoroughly prepared in public opinion, and had been elaborated by a special commission (see HARDENBERG and SCHÖN). In this edict, signed by the king October 9, 1807, it was decreed that the serfdom (*Unterthänigkeit*) of those who possessed their peasant holdings by hereditary tenure should at once cease to exist throughout the monarchy, and that serfdom should come to an end altogether from Martinmas 1810. The menial services to which peasants had been subject were also abolished; but any obligations to their lords, binding them as free persons—arising, that is to say, out of their possession of property or out of a special contract—were to remain unchanged until redeemed by mutual agreement. Frederick William I. had abolished serfdom on the royal domains in the kingdom of Prussia, properly so called, in the case of peasants holding directly from the crown; and now on 28th October 1807 a cabinet order extended this abolition to all the domains; and in the following July the domain tenants obtained full right of property in their holdings, subject, however, to the continued payment of certain dues and services.

The emancipating edict also established free trade in land, though not in the modern English sense of the phrase. It was a rule of law that noble estates could only be held by nobles, and that persons of the middle class (*bürgerlicher Herkunft*) could only possess them by special permission of the king; so also that peasant land could only be held by peasants, and lands belonging to civic communities by citizens. All these rules were now abolished, special provisions being introduced at Stein's suggestion to prevent the undue consolidation of peasant holdings or their absorption into the estates of the landlords. The restrictions were also removed which prevented the members of the several social classes from engaging in certain occupations, and in general forbade their passing into classes to which they did not previously belong; and every one was set at liberty to choose or change at will his calling or trade. It cannot be doubted that these reforms greatly contributed to the regeneration of Prussia, and did much to awaken the strong sentiment of patriotism and sense of national unity which brought about in the following years the liberation of the country from the tyranny of Napoleon.

Hardenberg afterwards considerably extended the provisions of the emancipating edict. By the ordinance of 16th March 1811, all dues and services from tenants on the domain lands were abolished in consideration of definite money payments; and on 14th September of the same year a corresponding edict was issued relating to peasants on the estates of landlords. This last made the peasant full owner of the land he cultivated, and relieved him of all payments in kind or in money, and all labour on the property of the landlord, who was compensated by receiving a portion of the tenant's holding—one-third in the case of hereditary tenancies, and one-half in the case of a tenancy for life or for a term of years or at will—and by being at the same time set free from all his legal obligations of contributing towards the maintenance or assistance of the tenant. For the surrender of the fixed proportion of the holding might be substituted, with the consent of the landlord, either a yearly rent or the immediate payment of an equivalent sum of money. These enactments had the effect of establishing the system of peasant proprietorship as it now exists in Prussia.

Further steps were also taken to remove restrictions on trade. In December 1810, it had been enacted that a trade certificate should authorise the holder to practise a trade anywhere in the monarchy, without interference from any corporation or individual. By the edict of 7th September 1811, Hardenberg practically abolished gilds, or at least deprived them of all coercive power, and changed them into voluntary associations. This later legislation of Hardenberg, both as

to land and as to trade, was disapproved by Stein, who was more conservative by temperament, and wished rather to reform than to abolish old German institutions.

[Stein wrote, at the request of the crown prince of Bavaria, an autobiography, in very curt and official style, which originally ended at the Peace of Paris, but to which some passages were subsequently added, describing his occupations after his retirement. E. M. Arndt, author of *Des deutschen Vaterland*, who saw much of Stein from the beginning of the war of liberation to the end of his life, wrote in 1850, by desire of Bunsen, his recollections of the statesman. The standard German life is that by G. H. Pertz (the editor of the *Monumenta Germaniae Historica*) in 6 vols., a most valuable work on the man and his period. The English reader will find a full account of both in Prof. Seeley's *Life and Times of Stein* (3 vols., 1878), a work founded throughout on original documents, and these collected from the most various sources and studied with conscientious care and penetrating judgment]. J. K. I.

STEIN, LORENZ VON (1815-1890), born at Eckernförde in Schleswig, was educated at a military school and at the gymnasium of Flensburg, and studied at the universities of Kiel and Jena. After having been for some time employed at Copenhagen as a government official for Schleswig, he went to the university of Berlin to complete his scientific education. During a subsequent residence at Paris, he studied closely the life of the people, became acquainted with Louis BLANC, Considérant and CABET, and thoroughly learned the characters and principles of these and other leading socialists. In 1846 he was appointed professor extraordinary of the political sciences at Kiel, but lost this position in 1850, when the supremacy of Denmark in the duchies was restored. In 1855 he was called to Vienna as professor of political science, and worked there as such, with undiminished zeal and spirit, till 1888, when he retired, maintaining, however, his intellectual activity to the end.

His writings cover the entire field of economic science and a part of the theory of politics, properly so called. His *Lehrbuch der National-Oekonomie* appeared in 1858 (3rd ed. 1887); his *Verwaltungslehre* in 1865 *et seq.*, and an abridgment of it, entitled *Handbuch der Verwaltungslehre* in 1870 (3rd ed. 1887-88) and his *Lehrbuch der Finanzwissenschaft*, in which he studied the financial systems of all the countries of Europe, in 1860 (5th ed. 1885-86). He and R. von MOHL are regarded as the creators of the modern science of administration; they substituted, says Cossa, for the empirical *Polizeiwissenschaft* of the cameralists (see CAMERALISTIC SCIENCE) a new science of administration adapted to the wants of our own time, and, of necessity, comprising economic elements. Stein compares, in his work on the subject, the administrative systems of France, Germany, and England. All his writings give evidence of a very high order of ability, though sometimes they were too much influenced by the metaphysics of HEGEL (*q.v.*), while he sometimes is led, by his love of system and his lively imagination, to erroneous or premature generalisations. A special object which he keeps in view is to exhibit the close relations which exist between economics, law, and philosophy. The work by which his name is best known in England is his *Socialismus und Kommunismus des heutigen Frankreichs* (1843; 2nd ed. 1848), in which he utilised his early Parisian experiences. It was afterwards re-written and expanded, and published under the name *Geschichte der socialen Bewegung in Frankreich* (1850-51). Stein was in a high degree awakening and stimulating as a lecturer and teacher, and had many thousands of pupils, including a number of Japanese youths, sent over by their government to study the western sciences. He was editor of the *Centralblatt für Eisenbahnen und Dampfschiffahrt*, 1861-87, and of the *Zeitschrift für Eisenbahnen und D. der österreichischen Monarchie*, 1886-90.

[Inama in *Allg. Deutsche Biogr.*—Stammhammer in *Handw. der Staatsw.*—Cossa, *Introd. allo Studio dell' E. P.*, ed. 1892, p. 534; English ed. 1893, p. 408.] J. K. I.

STEPHEN, JAMES (1759-1832), lawyer and distinguished anti-slavery agitator, was master in chancery Feb. 1811 to March 1831. He may be regarded as one of the ablest legal advocates of the anti-slavery group (see also ABOLITIONIST).

The publication of his most famous work, *The Slavery of the British West India Colonies delineated* (2 vols., London, 1824-30, 8vo) extended over six years. The title exactly describes the work. Vol. i. treats of the legal status of the West India slave, showing how he or she was debarred from giving legal evidence, bereft of the right of self-defence, and shamefully neglected in education. The volume closes with an account of the different kinds of ENFRANCHISEMENT and MANUMISSION. Vol. ii. treats of agricultural labour in the torrid zone, and the pernicious effect of its excess when forcibly exacted, with the consequent decline of population among the predial slaves on sugar estates. Chap. iv. exposes the barbarities practised on these plantations in excess of labour exacted under the lash, both as to time and actual physical exertion. Not only is the feeding, clothing, and housing of the negroes bad to the last degree, but they are even treated harshly when sick. Instances are quoted of ill-treatment, resulting in the slave's death. Chap. viii. concludes the work. Slavery is shewn to be a disgrace to Great Britain. The author quotes Mr. Pitt's view of compensation, and makes an urgent appeal to parliament to "undo the heavy burthen and let the oppressed go free."

This great work was both preceded and accompanied by smaller publications on the subject, *New Reasons for abolishing the Slave Trade*, by the author of *War in Disguise* (J. S.), 1807, 8vo. —*A Defence of the Bill for the Registration of Slaves in Letters to W. Wilberforce*, London, 1816, 8vo.—*ibid. Letter the Second*, London, 1816, 8vo. —*England enslaved by her own Slave Colonies*, 1st ed. London, 1826, 8vo, 2nd ed. 1826, London, 8vo. Stephen also published *War in Disguise, or the Frauds of Neutral Flags*, 1st ed. London,

1805, 8vo; 3rd ed. London, 1806, a pamphlet on international law, and *The Dangers of the Country, by the author of War in Disguise* (J. S.) London, 1807, 8vo. A. L.

STERLING. See EASTERLINGS; POUND STERLING.

STEUART, SIR JAMES (1712-1780), was born at Edinburgh, the only son of Sir James Steuart, solicitor-general of Scotland; great magistrates were also among his ancestors on both sides. Educated in the university of his native city, he was admitted as an advocate in 1735. He then, according to the custom of the period, went abroad and travelled for some years in the Netherlands, France, Spain, and Italy. At Rome he was presented to the Young Pretender, and became one of his most devoted and faithful supporters; he drew up the manifesto addressed to the people of England at the commencement of the insurrection of 1745. After Culloden, Steuart retired to France, and took up his residence at Angoulême, where he applied himself to the study of political economy and finance, for which he had always shown a marked predilection. He afterwards removed with his family successively to Paris, Brussels, Frankfort, Tübingen, Venice, Padua, and Antwerp, thus extending the range of his social observation. At the peace of 1763 he was allowed to return to Scotland on certain conditions; and in 1767 recovered the full rights of citizenship. In 1770 the work on which his reputation rests appeared. The range of subjects with which it deals is indicated in the title—*An Inquiry into the Principles of Political Economy, being an Essay on the Science of Domestic Policy in Free Nations, in which are particularly considered Population, Agriculture, Trade, Industry, Money, Coin, Interest, Circulation, Banks, Exchange, Public Credit and Taxes.* He describes it as "an attempt towards reducing to principles and forming into a regular science the complicated interests of domestic policy," offering it only "as a canvas for better hands than his to work upon." The book was at first well received at home, but after the publication of the *Wealth of Nations*, it fell into neglect, and has never since been much studied in England. Opinion respecting it has varied much among foreign economists. Many of the Germans from HUFELAND (1807) to Hasbach (1891) have estimated it very highly. HERRENSCHWAND declared Steuart to be the most thorough (*Grindlichste*) of all the English economists. Rehberg thought him more important than Smith, and valued so highly his exposition of the theory of money and prices that he said it ought, as a work of instruction, to be placed beside the *Principia* of NEWTON. He thought it very desirable that Steuart should find an interpreter (*Bearbeiter*), as Smith had found one in J. B. SAY. Roscher also holds him to have been "a great economist," who, by the higher merit of Adam Smith, and especially by the classic form of the latter's exposition, has been thrown unduly into the shade. On the other hand, in the view of GENTZ, "Steuart is to Smith what a very practised calculator is to a profound mathematician"; and the Italian Cossa, whilst admitting that he has good ideas on population, taxes, machinery, the influence of the market, and the distribution of systems of cultivation, adds—"It is mere pedantry to compare with the PHYSIOCRATS and with Adam Smith, a writer who could not distinguish between money and capital, value and price, wages and profits." One characteristic which has doubtless won for him the special esteem of the Germans is the *relativity* of his conceptions (which Roscher regards as among the most marked advances in economics before Smith), his constant reference to the stage of general national culture as influencing industrial life, and his often repeated enforcement of the necessity of adapting public policy to "the spirit, manners, habits, and customs of a people." He agreed, too, with most of the recent Germans in his sense of the danger of excessive abstraction, of too wide generalisation in deductive reasoning, and of neglecting "the influence of concomitant circumstances" on economic facts.

Steuart is to be viewed as one of those eclectics of the 18th century who, like FORBONNAIS in France, JUSTI in Germany, SONNENFELS in Austria, and GENOVESI in Italy, attempted to produce a connected series of dissertations on the several subjects with which political economy deals, before the foundation of the study on a truly scientific basis. He, as well as those foreign writers, adopted a system of moderate mercantilism, from which his acquaintance with the *Essays* of Hume had not converted him. In the spirit of the mercantile school, he considered political economy (he had adopted that name from MONTCHRÉTIEN) to be not so much a science as an art, having for its object "to provide food, other necessaries, and employment for every member of a society." We find in him many survivals of the characteristic prejudices of the mercantilists. Thus, for example, he entertains an altogether exaggerated view of the influence which statesmen can exercise on the national well-being. He dwells too much on the circulation of money as the one thing needful, the doing which tends to obscure all our notions of industrial economy. He over-estimates the importance of foreign as compared with domestic trade. And he seems to countenance the old opinion expressed by MONTAIGNE, that in the commerce of peoples "le profict de l'un est le dommage de l'aultre."

The plan and leading features of the *Inquiry* will be understood from the following summary:—Bk. i. is devoted to *Population*. Steuart is one of those named by MALTHUS in the preface to his *Essay* as having preceded him on this subject;

and he is generally admitted to have treated it well. He compares the generative faculty to "a spring loaded with a weight, which always exerts itself in proportion to the diminution of that weight," and explains clearly how increase and decrease of numbers follow the increase and decrease of the available amount of food. Bk. ii. is on *Trade and Industry*. Here he seeks to show how a judicious statesman ought to be constantly endeavouring, by legislative interference adapted to varying circumstances, to encourage some and discourage other branches of industry and commerce. He dissents from, and criticises, the views of Hume with respect to what the latter writer considered unfounded ideas as to the balance of trade. Bk. iii. is on *Money and Coin*, which are treated at great length; British coin, in particular, being historically dealt with, and its defects and the necessary remedies being elaborately discussed. In bk. iv. the author treats of *Credit and Debts*, and goes fully into the theory of banking and the history of some foreign banks, especially the Bank of France, and also into the doctrine of exchange. Bk. v. is on Taxes, which he divides under three heads: 1. those upon alienation, which he calls *proportional;* 2. those upon possessions, which he calls *cumulative;* and 3. those exacted in service, which he calls *personal*. A proportional tax is paid by the buyer who intends to consume at the time of the consumption, and is consolidated with the price of the commodity. Examples are excises, customs, stamp duties, postage, and the like. A cumulative tax implies no transition of property from hand to hand; instead of being laid on any determinate piece of labour or article of consumption, it is made to affect past, and not present, gains. Examples of this class are land-taxes, poll-taxes, window-taxes, etc. Of the third class, the CORVÉE in France was an example, as was also the militia service in England before pay was allowed.

The most important general rule respecting taxation, according to Steuart, is that it ought to impair the fruits, and not the fund-income and not capital. The net produce of the land remaining after deduction of the cost of production should alone be taxed, and so also only the produce of artisan work over and above the "physical necessary" of the workman, that is, his maintenance and his expense on tools. He refutes the notion that taxes act as a spur to industry, whilst admitting that a wise expenditure of them by the government may have that effect. He discusses the *Dîme Royale* of VAUBAN, and considers the question of the mode of collection of taxes, whether by farming or through government commissioners.

Steuart is not an attractive writer. His failure to achieve popularity must be in part attributed to his defects of style. Cossa complains of his tiresome digressions, and Dugald STEWART, while acknowledging him to be "very ingenious and well informed," remarks on the profusion of words with which he often obscures his meaning. Indeed, Steuart himself apologises for his prolixity and other faults of style, and tells his readers that he has sacrificed everything else to perspicuity. But more adverse still to his acceptance and reputation was the state of opinion in his time, when the principles of industrial liberty were strongly tending towards the decisive ascendency, both intellectual and political, which they were destined soon to acquire from the superior genius of Adam Smith. Steuart's book must, however, always retain at least a historical interest and value, as abounding in information respecting facts and institutions, and exhibiting the transitional stage of economic studies immediately before the new era opened by the *Wealth of Nations*.

Other writings of Steuart are:—*A Dissertation upon the Doctrine and Principles of Money applied to the German Coins*, 1761; *The Principles of Money applied to the Present State of the Coin of Bengal*, 1772; *A Dissertation on the Policy of Grain*, 1783; *Plan for Introducing Uniformity of Weights and Measures over the World* (published posthumously). These tracts will be found in the edition of his collected works published by his son General Sir James Steuart (6 vols., 1805). Appended to this edition are *Anecdotes of his Life*, by the editor. There is also a biography by his nephew Lord Buchan, 1780.[1]

[Roscher, *Geschichte der N. O.*, pp. 563, 745, 757; Kautz, *Geschichtliche Entwickelung der N. O.*, p. 285; Cossa, *Introd. allo Studio dell' E. P.*, ed. 1892, pp. 255 *et seq.*, Eng. ed. 1893, p. 233.]

J. K. I.

STEWART, DUGALD (1753-1828), was son of Dr. Matthew Stewart, the able successor of Maclaurin as professor of mathematics in the university of Edinburgh. To that university the young Dugald passed from the High School as early as 1765, and was there a pupil of Adam FERGUSON; he was afterwards a student at Glasgow for a session, where Reid was then teaching. In 1785 he succeeded Ferguson in the chair of moral philosophy, which he continued to fill till 1810.

It was the practice of the Scottish professors of moral philosophy to include in their courses lectures on political economy. Stewart did so, and with great effect, exerting by his teaching of this, as of the other subjects he dealt with, a powerful influence on many hearers who afterwards became distinguished, as for example Lords Lauderdale, Palmerston, Lansdowne, Brougham, and Jeffrey, Francis Horner and Sydney Smith. "His disciples," says Sir James Mackintosh, "he lived to see among the lights and ornaments of the council and the senate; and, without derogation from his writings, it may be said that his disciples were among his best works." The course on economics delivered by Stewart was prepared by

[1] The anxious care Steuart devoted to his work, his desire to do his very utmost for the benefit of his country, his earnest anxiety to be impartial, stamp his work with a powerful and vivid individuality. His very motto—

Ore trahit quodcumque potest atque addit acervo

is characteristic of his energetic toil and his consciousness that at the time he wrote patient labour was what was most needed to advance the study, the interests of which he had so closely at heart. The editor of this Dictionary has ventured to reproduce the motto on his title page.

him for publication in a corrected and amplified form; but his son, in a fit of disappointment and despondency, destroyed the manuscript, only a small portion accidentally escaping, along with those of other writings of his father and almost all his correspondence. What could be recovered of the economic lectures, whether in this revised form or in their earlier shape, with additions from notes taken by students when they were delivered, has been published in Sir William Hamilton's edition of *Stewart's Collected Works* (1877), vols. viii. and ix.

Whilst in general agreement with the practical conclusions of the *Wealth of Nations*—of which he elsewhere said that it was "the most comprehensive and perfect work that had yet appeared on the principles of any branch of legislation"—he occasionally criticises Smith's statements of theory and technical phrases and distinctions, differing from him, however, with reluctance. In advocating liberty of individual enterprise and unrestricted exchange of the products of personal or national industry, he goes even farther than his master, as with respect to the NAVIGATION LAWS. He also examines with care the doctrines of the PHYSIOCRATS, and to some extent defends them against the strictures of Smith. He seeks to enlarge the comprehension of political economy, so as to make it comprise "all those speculations which have for their object the happiness and improvement of political society." His observations everywhere exhibit good sense, clearness of thought, and a fine enthusiasm for justice, liberty, and progress. But he is sometimes unduly prolix, and degenerates into commonplace; and he is too much given to quotation, even where there is nothing in the passage cited which might not as fitly have proceeded from his own pen.

The subjects successively dealt with by Stewart in his lectures are — population, including the question of the comparative advantages of small and great farms, enclosures, and agrarian policy in general; national wealth, with the distinction of productive and unproductive labour; money, prices, and interest; trade, especially the trade in corn; taxation; and the relief and maintenance of the poor. After the study of those subjects which strictly belong to political economy, follow a brief treatment of the education of the lower orders, and a pretty full discussion of politics proper or the theory of government. The bibliography of the lectures is very valuable.

Besides the lectures, he was author of an "Account of the Life and Writings of Adam Smith," read before the Royal Society of Edinburgh in 1793, and published in vol. iii. of its *Transactions*. There is a biography of Stewart by John Veitch in vol. x. of Hamilton's edition of his works. J. K. I.

STINT, sometimes called a cattle-gate, was pasture on which the tenants of a MANOR, and even the lord himself, might graze only a limited, "stinted," number of cattle, usually perhaps for a limited season of the year. The right of grazing cattle on stinted pastures was not a general but a specific right of common; it did not carry with it ownership of the soil, but it was a real estate, tenable and transferable as a freehold or a copyhold tenement, like any other estate in land.

The term is said to be chiefly used in the north.

[Elton, *Law of Commons and Waste Lands*, ch. ii. and *Law of Copyholds*, p. 18, note.—Woolrych, *Law of rights of Common*.—Joshua Williams, *Rights of Common*.—Fitzherbert, *Extent Maner.*, 12, 13.—*Gen. Inclosure Act*, 8 & 9 Vict. c. 118.] E. G. P.

STIPULATIO is the ordinary contract of Roman law entered into between the parties in the presence of each other by the oral form of question and answer, *e.g.* the stipulator or promisee asks the other party, the promissor or person promising: Do you promise to pay me 10 *aurei*? The promissor answers: I do promise.

The stipulatio might be either absolute or conditional.

It was a general form, by which any kind of agreement might be made.

Stipulatio poenae nomine corresponds in principle to the bond of English law.

The *stipulatio* did not require witnesses, but it became usual to draw up a written memorandum (*cautio*) of its terms, at the time of its being entered into, and the existence of such a memorandum was under the law of Justinian presumptive evidence of the fact that the form of question and answer had been observed.

E. A. W.

STIRLING, PATRICK JAMES, LL.D. (1809-1891), for fifty years a well-known and much respected lawyer in Dunblane, N.B.

Author of *The Philosophy of Trade, or Outlines of a Theory of Profits and Prices, including an examination of the principles which determine the relative value of Corn, Labour, and Currency.* (Edinburgh, Oliver and Boyd, 1846): also of *The Australian and Californian Gold Discoveries and their Probable Consequences* (Oliver and Boyd, 1853): translator of BASTIAT'S *Harmonies* (1860) and *Sophismes* (1863), the former with a notice of Bastiat's life and writings. *The Philosophy of Trade* treats, in a highly abstract way, of value, labour, profits, rent, foreign trade, the chief contention being, in opposition to Ricardo, that value depends solely on the relation of demand and supply. It purports to describe in outline the laws which would regulate the operations of trade in its healthy and unfettered state, assuming freedom from external interference of every kind, even from taxes for revenue. It had the good fortune to be highly praised in the *N.B. Review*, Nov. 1846, by Dr. T. CHALMERS—whose favourite student Stirling had been in St. Andrews—as "something far higher than an exposition: it is a rectification of first principles"; and by George Eliot in the *Westminster Review*, Oct. 1847, for "the extreme clearness of its illustrations and the almost geometrical form of its doctrines and demonstrations."

In the *Gold Discoveries* one sees the misgivings

with which the new flood of precious metal was regarded. Stirling anticipates "a great social and commercial revolution, a disturbance of the relations and distribution of property"; suggests that prices may be trebled or quadrupled; and seriously "counts the cost" of adhering to the gold standard. He has, however, the true banker's belief in the sacredness of the money contract. "The man who has undertaken to pay his creditor £100 sterling has in law and in fact engaged to deliver to him 100 sovereigns, or 25⅜ oz. of standard gold. Providence, in the meantime, has furnished the debtor unexpectedly with cheaper and more abundant means of fulfilling this engagement. Is he to be deprived by arbitrary legislation of the benefit of those means?" In the end he concludes that the question embraces considerations of justice and equity as well as of policy and expediency, and should be handed over to the politician or practical statesman. W. S.

STIRNER, MAX (1806-1856), born at Bayreuth, is the name by which Caspar SCHMIDT, the philosophic individualist anarchist, is most generally known in Germany. After studying philosophy and theology, he became a master at the Gymnasium in Berlin, and was also a teacher in a girls' school. He published, in 1845, his chief work, *Der Einzige und sein Eigenthum*. This had a brilliant but transitory success. He also wrote a *History of the Reaction after 1848*, and published translations of Adam Smith and other English economists. His life was spent in humble circumstances, and he died in poverty. His position was that of an individualist anarchist of the most extreme and uncompromising kind, preaching the cultus of the *ego* of the individual almost as a religion. He maintained in his *Einzige und sein Eigenthum* the crudest form of the doctrine "might is right," deriving every right and moral sanction from the individual alone. His views on property are best expressed in his own words, which form a remarkable contrast to Proudhon's view that "property is theft." "What is my property?" asks Stirner, and answers at once, "Nothing but that which is in my power: to what property am I entitled? to any to which I entitle myself. I myself give myself the right to property by taking property." He accepts the principle that in labour-questions each should look out for himself, and will have no organisation and no division of goods among the community. He would let all struggle for existence, and fare as best they can. The only form of community he would admit is that of a "free union of egoists," which should only last as long as any one member of the union pleased. Stirner, in fact, is the philosophic exponent of the extremest form of LAISSEZ FAIRE and INDIVIDUALISM (*q.v.*) in society and economics, and as such has had considerable influence over the modern school of anarchists in Germany and Russia.

[Stirner's chief work is *Der Einzige und sein Eigenthum*, Leipzig, 1845, republished by Ph. Reclam of Leipzig, with an introduction by Paul Lauterbach.—See also *Max Stirner und Friedrich Nietzsche, Erscheinungen des modernen Geistes*, by R. Schellwien, Leipzig, 1892; and (better) *Der Anarchismus*, by E. V. Zenker, Jena, 1895.—Cf. Nordau, *Entartung*, 1892.] H. de B. G.

STIVER, the full predecimal money of account of Holland, Flanders, Brabant, Liège, Clêves, and Westphalia, may be stated thus:—lb. (£) = 3 rix dollars = 6 florins [£] = 20 schillings (s) = 120 stiver [s] = 240 groat (d) = 960 pfennig (Clêves) = 1440 deniers [d] = 1920 pfennig or (in Clêves) heller; but some only of these items are selected, and those to which we have given the Carolingian titles £ : *s* : *d* do not appear twice over in the usual money of account. The stiver, when coined, was in modern times the least silver coin; it has now been superseded by the 5 cent piece, with which it is popularly identified.

[P. Kelly, *Universal Cambist* (1835).—Tate, *Modern Cambist* (1893).] J. D. R.

STOCK. Public loans may be raised in one of two ways: either by the issue of bonds, obligations, or debentures, or by the issue of "stock." Bonds, obligations, or debentures are issued in fixed amounts; stock, on the other hand, may be allotted and transferred in any amounts appearing suitable to the parties concerned, subject, however, in some cases to certain restrictions prohibiting fractions of pounds or of larger or smaller amounts. In the case of securities of the first named description the investor receives a document stating his rights, whilst in the case of stock the document, if any, which the holder receives, merely states that he is the holder of stock for a certain amount constituted by some statute, or trust deed or general bond, by which the rights of the shareholders are defined (see DEBENTURE STOCK).

The expression "stock" is also used in respect of such part of the capital of a company as has ceased to be divided into shares of fixed and equal amount. Shares in companies may be converted into stock as soon as their nominal amount is paid up in full.

[Companies' Act 1862, §§ 12 and 28; Companies' Clauses Consolidation Act, § 61. The conversion of shares into stock is almost universal in the case of English railway and canal companies.] E. S.

STOCK EXCHANGE. See EXCHANGE, STOCK.

STOCK JOBBING. See JOBBER.

STONE. See MEASURES AND WEIGHTS.

STOPPAGE IN TRANSITU. If a buyer of goods becomes insolvent, the unpaid seller who has parted with the possession of the goods has a right of stopping them *in transitu*, that is to say, he may resume possession of the goods so long as they are in course of transit,

and may retain them until payment or tender of the price.

[As to the Roman law, see Moyle, *Contract of Sale in the Civil Law*, Oxford, 1892. As to English law, Sale of Goods Act 1894, §§ 44-46; Chalmers on the *Sale of Goods*, London, 1894; and as to the French law, art. 1664, of the *Code Civil*, and arts. 574-576 of the *Code de Commerce*].

J. E. C. M.

STORCH, HEINRICH FRIEDRICH VON (1766-1835), is sometimes regarded as having, along with C. von Schlözer, founded a Germano-Russian school of economics; he had at least the principal part in naturalising economic studies in Russia (see RUSSIAN SCHOOL). Born at Riga, he studied philosophy, law, and political science at Jena and Heidelberg. He afterwards travelled in South Germany and France, and published the results of his observations in *Skizzen, Scenen, und Bemerkungen auf einer Reise durch Frankreich gesammelt 1787*. In 1788 he returned to Russia, and was appointed professor of belles lettres to the corps of cadets at St. Petersburg, and secretary to the chancellor of the empire. In 1799 he was employed as teacher of the daughters of the czar Paul I., and obtained, some time after, the title of court councillor, which conferred on him hereditary nobility. He was charged by Alexander I. and the empress mother with the instruction in political economy of the granddukes Nicholas, afterwards emperor, and Michael. The lessons which he gave to his imperial pupils composed the substance of his principal work, *Cours d'économie Politique, ou exposition des principes qui déterminent la prospérité des nations*, 6 vols., Petersburg, 1815.

Storch is, in essentials, a follower of Adam SMITH. He also uses J. B. SAY largely, but judges the opinions of both these writers with independence. On the theory of RENT, he approaches the School of RICARDO. There is not much originality in the portion of the work relating to general theory, but he is strong on several special subjects; thus, he gives a full and luminous account of the organisation of almost all the banks of Europe. As BLANQUI remarks, he was favourably situated for studying peculiar conditions and institutions which existed in Russia, but which had been overlooked or insufficiently considered by the economists of the western nations; hence his work is valuable in relation to SLAVERY and the emancipation of the working classes. He described with praiseworthy honesty the vices of the contemporary administration of justice in Russia, the spendthrift and irregular lives of the nobility, and the economic and moral evils resulting from SERFDOM. The book was too liberal in tone for the Russia of his day, and a Russian translation of it was forbidden by the censorship.

We find in Storch germs of the principles of the HISTORICAL SCHOOL. He points out the impossibility, in many cases, of arriving at theorems of universal validity, and the necessity of studying economic phenomena in their relation to the stage of development which the wealth and institutions of a nation have attained. He shows a tendency to the expansion of economics into a general theory of civilisation, as is indeed indicated by the title of his principal work. With this tendency are connected his treatment of personal intellectual and moral acquisitions and possessions as economic goods (see GOODS, ECONOMIC), and his discussion of the differences between agricultural, manufacturing, and commercial societies. He freely introduces ethical considerations, led to this, doubtless, as ROSSI has suggested, by a sense of the importance of calling the attention of his princely pupils to higher things than economics. J. B. Say published in France an unauthorised edition of the *Cours* (1823), with notes, in which he sharply contradicted some of the author's opinions. Storch, justly indignant at this, replied to some of Say's criticisms in a treatise entitled *Considérations sur la nature du revenu national* (1824), which may be regarded as an additional volume of the *Cours*, and is, perhaps, his most mature and scientific work. In it he corrects and completes Say's theory of immaterial products, and refutes his doctrine that for an entire people the gross and net revenue are identical.

The *Cours* was freely translated into German, with additions, by RAU (1819-26), and the *Considérations* into the same language by Storch himself (1825). Other works of Storch are—*Statistische Uebersicht der Statthalterschaften des russischen Reichs*, 1795.; and *Historisch-statistisches Gemälde des russ. Reichs am Ende des 18ten Jahrhunderts* (9 vols. 1797-1803). He also edited (1803-1811) a periodical entitled *Russland unter Alexander I.*

[Roscher, *Gesch. der Nat. Oek.*, p. 799.—Cossa, *Introd. allo Studio dell' E. P.*, p. 330, ed. 1892; English ed. 1893, p. 311.—Kieseritzky in *Allg. deutsche Biogr.*]

J. K. I.

STORY, JOSEPH (1779-1845) jurist, son of Elisha Story, was born at Marblehead, Massachusetts, on 18th September 1779, graduated at Harvard in 1798, becoming LL.D. in 1821, and gave himself to the study of the law, commencing practice in Salem in 1801. He rapidly acquired distinction, was elected to the state legislature as a democratic member for Salem in 1805, and to congress in 1808. In 1811 he became speaker of the Massachusetts assembly, and the same year was appointed associate justice of the supreme court of the United States. In 1829 he was elected to be the first professor of law at Harvard. In 1881 he declined the post of chief justice of Massachusetts. He died at Cambridge, Mass.

Story was a profound lawyer, and the number of works he left behind him is extraordinary. The aspect of his work which concerns this dictionary is the value of his contributions to INTERNATIONAL LAW. His judicial career began just before the war of 1812-14, and he had to face the intricate questions of admiralty law, salvage, marine insurance, and prizes. His study of these questions led up to that great work entitled *Commentaries on the Conflict of Laws*, Boston,

1834. A selection from his decisions, entitled *Notes on the Principle and Practice of Prize Courts*, was published in London in 1854.

[Appleton's *Cyclopædia of American Biography*.]

C. A. H.

STOTINKI. A Bulgarian copper coin equivalent in currency value to the French centime.

100 stotinkis—1 leu (or franc). F. E. A.

STRACCA, BENVENUTO (1509-1578), born at Ancona, of a business family. An eminent jurist and originator of scientific commercial law; he collected and compiled, on absolutely systematic lines, a body of precepts which, up to that date, had been scattered over innumerable volumes of *Commentaries* and *Opinions*. His works contain information of interest to economists. He shows the usefulness of trade and navigation; discusses the restrictions on certain branches of trade, and expresses comparatively moderate opinions on the theory of usury.

He wrote *De Mercatura seu Mercatore*, Venetiis, 1553.

[See Franchi, *Benvenuto Stracca, giureconsulto anconitano del secolo XVI.*, Rome, Loescher, 1888. —Gobbi, *La concorrenza estera e gli antichi economisti Italiani*, Milan, Hoepli, 1884].

U. R.

STRIKES. A strike is a cessation of work resulting from an agreement on the part of a body of workmen either to break or not to renew their existing contracts of service. Since the passing of the Conspiracy and Protection of Property Act 1875, it has ceased to be, in any case, a criminal offence (see CONSPIRACY, COMMON LAW DOCTRINE OF); but, where there is breach of contract, the employers affected can recover damages both from their workmen and probably also from the promoters of the strike (see Lumley *v.* Gye, 2 E. and B. 216; and Bowen *v.* Hall, L.R. 6, Q.B.D., c. 333). A cessation of work resulting from an agreement not to renew existing contracts may be the occasion of many acts civilly or criminally wrongful; but it affords in itself no ground for any legal proceedings whatever, except possibly in so far as its promoters may be proved to be acting "maliciously" (see Temperton *v.* Russell (No. 2), 1893, 1 Q.B., 715).

To conduct a strike successfully, the men must be able to prevent the employers obtaining a sufficient supply of labour from other sources. With this end in view, they generally station "pickets" to guard the approaches to their places of work and persuade other workmen to keep away. The mere act of "picketing" was formerly considered "intimidation," and, therefore, a criminal offence. Under the Criminal Law Amendment Act 1871, however, "intimidation" ceased to be criminally punishable unless it was of such a character as to justify a magistrate in binding over the intimidators to keep the peace; and it has been decided that the Conspiracy and Protection of Property Act 1875 has made no change in the law on this point (see Curran *v.* Treleaven, 1891, 2 Q.B., 545).

Sir R. Giffen, when controller-general of the commercial, labour, and statistical departments of the board of trade, calculated from a comparison of the board of trade wages statistics with the census returns that the amount annually paid in wages to British manual labourers is about £633,000,000 (see WAGES), and from the figures given in the annual reports of the labour department on strikes and lock-outs (see LABOUR DEPARTMENT), it would appear that a further sum of nearly £1,500,000, which would otherwise be paid in wages, is annually lost on average, during strikes, to the workers employed by the firms immediately affected. According to the report on the strikes and lock-outs of 1892 (*Parl. Papers*, c. 7403 of 1894), 700 disputes, having an average duration of 32 days, and throwing out of work 371,799 persons employed in the 3000 establishments directly concerned, at an aggregate loss in their wages of about £3,900,000, occurred in the course of that year. These figures relate to a period not only of bad trade, but also of considerable industrial disturbance; and they will appear the more significant when it is remembered that they take no account of the economic effect of the strikes upon the trades that depend upon the affected industries for their material or custom. It may be observed, however, that a temporary cessation of work may sometimes serve a useful purpose in enabling the employers to clear off their surplus stocks, and that the loss in wages, amounting, as it does after all, only to a fraction of 1 per cent of the total wages paid annually, is, in many cases, made up for by increased activity after the strikes are over.

It appears from the report of the royal commission on labour that by far the largest proportion of disputes, strikes, and lock-outs have direct reference to the increase or diminution of the standard of wages, or the introduction of fixed price-lists. Many other disputes relate to the standard of hours, a question which, in many cases, forms part of a conflict with regard to wages. Other conflicts are undertaken by trade unions to obtain the "recognition" of employers, to strengthen and enlarge their organisation, to limit the number of youths entering the trade, to prevent the employment of non-unionists or sometimes that of women and children, to defend unionist colleagues or assert unionist rules and customs, and, generally speaking, to protect the monopoly of workmen already in the organisation. But, in all cases, the ultimate object is to obtain as large a share as possible of the receipts of the in-

dustry, and to exercise a voice as to the general conditions under which it is carried on. Many disputes are connected with special customs or circumstances in particular works, with attempts to alter or prevent the alteration of various working arrangements, with questions of piecework, overtime, holidays, meal-times, and the introduction and abolition of systems of fines, deductions, and so forth. Some are of a merely personal nature, being connected, for example, with the unpopularity of particular officials. "Sympathy" or "on principle" strikes are those in which men engaged in one occupation strike without alleging any special grievance of their own, expressly in order to support men engaged in some other occupation who are involved in a conflict with their employers. A common instance of this kind of strike, in recent times, has been the refusal of dock labourers to discharge or to coal ships manned by non-unionist crews. There are also cases where a number of employers close their works in order to support a particular employer against whom a strike is being directed. Finally, there are the "demarcation" disputes, in which organised bodies of workmen, employed in some complex trade, like shipbuilding, are at issue with regard to the province of work belonging to each section. In this last case, employers, though not directly concerned in the disputes, yet have to bear the inconvenience and expense of the strikes or stoppages of work to which they lead (see *Fifth and Final Report of the Royal Commission on Labour*, p. 39, par. 100).

The history of strikes is the history of a series of struggles on the part of trade unions to substitute collective for individual bargaining between employers and workmen. It is noticeable that, as organisation in any given trade becomes more perfect, strikes become less frequent, though more severe. For, strong organisation on both sides makes possible both the formation of representative joint-boards to discuss differences and the enforcement of arbitrators' awards. The more advanced section of the labour leaders are of opinion that, in most cases, "the points at issue are not such as admit of decision upon any principles that both parties accept," and they, accordingly, conclude that "the only complete solution of the problem is to be found in the progress of the industrial evolution, which will assign to the 'captains of industry,' as well as to the manual workers, their proper position as servants of the community." *Fifth and Final Report of the Royal Commission on Labour*, pt. i. pp. 145 and 146; *Parl. Papers*, c. 7421 of 1894. But the remarkable increase that has taken place in the course of the last few years in the number and effectiveness of boards of conciliation and arbitration encourages the hope that industrial peace may be best secured by their agency.

Statutory provision for the settlement of labour disputes by regular tribunals with power to enforce their awards has existed ever since the middle of the 14th century. But from the time that the legislature allowed the conditions of service to become a matter of free contract, neither employers nor workmen have ever been induced to make use of the judicial machinery provided for them, but they have always preferred to form voluntary tribunals of their own. The act of 5 Geo. IV. c. 96, passed in 1824 and amended in 1837, which empowered magistrates to nominate arbitrators with judicial authority on the application of either party, was never appealed to, and the acts of 1867 and 1872, enabling disputants to confer similar judicial powers upon boards chosen by themselves, proved equally unsuccessful. The policy of these acts, however, still meets with some favour among politicians. Thus, one of the members of the royal commission on labour, Sir John Gorst, reported in favour of an act enabling the central government and county councils to form boards consisting of representatives of employers and employed in equal numbers and independent chairmen, with power to compel parties to industrial disputes to appear before them and give evidence (see *Fifth and Final Report of the Royal Commission on Labour*, pp. 148, 149; *Parl. Papers*, c. 7421 of 1894). The majority of Sir John Gorst's colleagues were of opinion that "no central department has the local knowledge which would enable it to attempt with success the creation of such institutions, and that the intervention of local authorities cannot be usefully extended at present beyond experimental action with regard to industrial tribunals to decide cases arising out of existing agreements" (see *Fifth and Final Report of the Royal Commission on Labour*, p. 100, par. 301; *Parl. Papers*, c. 7421 of 1894). The Conciliation Act, 1896, has since been passed, repealing the Acts of 1824, 1867, and 1872, and empowering the board of trade to employ persons to investigate the causes and circumstances of particular strikes, and assist the disputants to come to terms.

[Crompton, *Industrial Conciliation*, London, 1876.—J. E. Davis, *Labour and Labour Laws*.—Howell, *The Conflicts of Capital and Labour*, London, 1890.—Jevons, *The State in Relation to Labour*.—Price, *Industrial Peace*, London, 1887.—Sir J. F. Stephen, *History of the Criminal Law of England*, London, 1885.—Spyers, *The Labour Question*, being an epitome of the evidence and report of the royal commission on labour, London, 1894.—Wright, *Industrial Conciliation and Arbitration*, Boston, U.S.A., 1881; and *The Labour Gazette*, the *Annual Reports on Strikes and Trade Unions*, and other periodical publications of the labour department of the board of trade. See also LABOUR DEPARTMENT; TRADE DISPUTES, LAW AS TO; TRADES UNIONS.]

T. G. S.

STRINGENCY IN THE MONEY MARKET is produced, not by any actual scarcity of currency, but by fear lest, owing to loss of credit, there may be a greater demand for liquid funds than can be readily supplied. A crisis of this character, when intensified and prolonged, becomes a Panic (see CRISES). The most notable instances, during recent years, of stringency stopping short of panic, are the crises of October 1878 and of November 1890. In the former the stoppage of the City of Glasgow Bank, on the 2nd of October, was the first indication of loss of credit. Several other failures followed, but in the end the necessities for forced liquidation proved less than had been expected. The bank rate was not raised beyond 6 per cent, and though the banking reserve fell from 44 per cent to 28 per cent of the liabilities, both the bullion and the active circulation increased by about two millions. In November 1890 the crisis arose out of the heavy liabilities of Baring Brothers and some other firms interested in South American finance. Arrangements were made for the liquidation of the Barings' estate under guarantee by the bankers and merchants of the city of London, and of other important cities, and for a special import of gold from France. In consequence, while the circulation remained almost stationary, the bullion and the reserve were rapidly increased, and the danger subsided without requiring the increase of the bank rate beyond 6 per cent. R. W. B.

STRUZZI, ALBERTO (17th century), an Italian by birth or descent, was naturalised in Spain and became an officer in the household of one of the Royal *Infantas* (see SPANISH SCHOOL).

His *Diálogo sobre el Comercio de estos reinos de Castilla*, published 1624 (no place mentioned), is perhaps the earliest work which advocates absolute international free trade. It precedes the *Discourses upon Trade* (1691) of DUDLEY NORTH by almost three-quarters of a century; and though LUNETTI, his contemporary and countryman, advocated the suppression of the Neapolitan customs duties in his *Politica Mercantile* (Naples, 1630), he still upheld the legal regulation of the rate of exchange, and did not admit free export of money. In his *Biblioteca de Economistas Españoles*, and his *Historia de la Economía Política en España* (ii. pp. 338, 339), Colmeiro gives the following account of Struzzi's decidedly liberal views on the subject. Trade is free by the natural law of nations. The diversity of the territories of nations compels free exchange of goods; this ensures plenty and cheapness both for agricultural produce and manufactures. Prohibition causes waste; it is evaded by smuggling, and any attempt to repress smuggling is fruitless; one might as well attempt to keep people out of an open field merely by putting up a gate at the entrance. Free trade leads to a natural return for the goods which leave the kingdom; gold and silver ought not to be retained in Spain under penalty of forfeiture of the king's taxes and dues. As Spain is unable to provide her colonies with the manufactures required, to exclude foreign goods is equivalent to driving out of Spain half the amount of the precious metals which have been extracted in the New World, or to showing foreign nations the way to carry them off themselves. Struzzi concludes with this sentence: "It is easy to talk about the prohibition of [foreign] goods, but to do this is no easy matter." See also Cossa, *Saggi di Ec. Pol.*, p. 47 (Milan, 1878). E. CA.

STYLE OR TRADE NAME. It is usual for traders, whether trading singly or in partnership with others, to adopt a name under which the trade is carried on, which need not necessarily be the name of the person or persons who carry on such trade. English law allows complete liberty in this respect. A man may trade under any name he chooses to adopt, and may carry on a number of separate trading-establishments under a number of different names. One trader may use a trade name implying that several persons are carrying on the business together, and several partners may carry on a business under a single name. The only limit to this complete freedom in the choice of trade names is imposed by the necessity of respecting the rights of others.

If a person uses the trade name of another person with the intention of making his customers believe that they are dealing with such other person, he may be restrained from using such trade name—though it may be his own name; but in case of a person using his own name, the intention to deceive must be proved, whilst in the case of a person using the trade name of another not being his own name, the intention to deceive is presumed (see Reddaway *v.* Banham [1896], A. C.; Tussaud *v.* Tussaud, 44 Ch. D.).

In continental countries the rules about trade-names are much stricter. In Germany a single trader starting a new business may not use any name except his own surname with or without Christian names (*German Mercantile Code*, § 16; after the 1st January 1900 one Christian name at least, written out in full, must form part of the trade name—*New German Mercantile Code*, § 18), and the trade name of a newly-established firm must contain the name of one of the partners at least, and if it does not contain the names of all of the partners, must add an indication showing that there are other partners (*e.g.* the words "and Company"); (*German M.C.* § 17; *German N.M.C.* § 19). The trade name of a single trader or of a firm may, however, remain unchanged notwithstanding the accession or retirement of any partner, and any person or persons purchasing an existing business may continue the use of the former trade name if authorised to do so by the former owner or owners of such business (*German M.C.* §§ 22 and 24; *German N.M.C.* §§ 22 and 24). The German law also provides that a new trade name must be distinguishable from any existing trade name used in the same place (*G.M.C.* § 20; *G.N.M.C.* § 30).

The provisions of the French law are similar—

(*Code de Com.* § 20), but in France the trade name of a single trader cannot be continued by his successor or successors, and the trade name of a firm may not contain any names not being the name of one of the actual partners (*Code de Commerce*, § 21; as to Switzerland, see *Swiss Code of Obligations*, § 872).

In many continental countries all trade names must be registered, and in these countries it is always possible for all persons by searching the register to ascertain who at a given moment are the owners of a business carrying on trade under a given trade name (see for instance *G.M.C.* § 19; *New G.M.C.* § 21; Swiss *Code of Obligations*, § 861). The absence of such a provision in English law has frequently been the cause of inconveniences and loss. It is often most difficult to ascertain the name of the owner of a business or to find out whether any of the persons whose names appear in a firm name are still partners in the firm using such firm name, and it is much to be regretted that the attempts made from time to time in this country to remedy these evils by legislation were frustrated by the passive resistance of persons who probably did not realise the extent of the mischief which they helped to perpetuate. If compulsory registration of trade names were introduced, the freedom of choice in the selection of a trade name which is characteristic of British as distinguished from foreign law, would cease to have any prejudicial effects. E. S.

SUB-CONTRACT—or the system under which Jones contracts with Smith to do some work for Smith, and with Brown that Brown should do it or part of it—is, like agency, almost as universal as trade. Two kinds of sub-contractor have recently attracted attention. First there is the middleman. He figured in the Devon (1845) and Bessborough (1881) commissions as the lessee who lived by rackrenting subtenants, unchecked by that custom, public opinion, and remote self-interest, which sways British landowners, and therefore—the conditions of competition being unequal—woe followed in his wake. Similarly, where poor people cluster in large towns, some sub-lessors have left the same trail (*Report of S. C. of H. of C. on Artisans' Dwellings* (1882), vol. vii. p. 35; *Report of Royal Commission on the Housing of the Working Classes* (1884-85), vol. lxxx. p. 21), although others have bettered and brightened the houses which they sub-let, Mr. Casby and Miss O. Hill being found in the same ranks. Again cases have been cited where Brown consisted of desperate destitute immigrants whose ways and language Jones knew and Smith did not, or where prices have fallen and Smith has been ashamed to pay Brown less than customary prices, so that it pays for Jones to buy from Brown and resell to Smith at competition prices. Jones, in the former case, is better known as "the Jew" of the tailoring trades, and in the latter case as the "fogger" of the chain- and nail-making trades; but both cases are very rare, and both "Jew" and "fogger" have other functions. None of these intermediate parasitic interests can last long, and a little more or a little less competition than that which created, invariably kills them.

Secondly, the artisan contractor or, more usually, sub-contractor—who is quite distinct from the middleman—is a worker of the same kind as his labourers, and he represents the integration, they the division, of labour. Fletcher, one of the assistant commissioners on hand-loom weaving (1839-41), described him thus: before 1815 there were in Coventry (1) a "master-manufacturer" who bought thrown silk and had it dyed, (2) then let it out to the "master-weaver" or "undertaker," (3) who with his family warped and wound it, and (4) his journeymen, helped by (5) unpaid apprentices, did the rest under his supervision with his looms in his house. Then (2) returned the perfected article to (1), who warehoused it in London. Estimates for waste, and prices as between (1) (2) and (4), called list prices, were until 1815 customary, afterwards a matter of contract and competition, so that (2) was henceforth contractor or sub-contractor. Then competition evolved the London non-manufacturing shopkeeper, squeezed out (2) and (3)—the "undertaker" (2) becoming (1) "little master," or the "master-manufacturer" (1) dealing direct with the 4th class through one of its members (a foreman)—and assimilated (4) and (5); soon no producers were left except a dead level of labourers on the one hand, and on the other hand a master, large or little, who sometimes produced independently, sometimes under contract with non-manufacturing shopkeepers. Here sub-contract emerged for a moment at the point at which the mediæval passed into the factory system. Next CAIRNES in his essay on "Co-operation in the Slate Quarries of North Wales" (*Essays*, p. 166) rediscovered him in a new disguise—(1) a lessee who works a quarry sub-lets part of the quarry and quarrying to (2) "bargainers"; (3) the family is usually absent; and (4) journeymen—misspelt "germyns"—are often (5) learners. Cairnes, M'Culloch, and Thornton have praised the system as akin to co-operative production, Brassey, *Lectures on the Labour Question* (1878), pp. 124-128, as akin to piecework. These cases, which still exist, deserve the praise bestowed on them, but are carried on under peculiar conditions; thus the principal contractor or lessee seldom parts with control over the ultimate employees for fear of Mines and Quarries' Acts and strikes, for the men work in the open and may combine; and he sometimes stipulates for usual wages (*Report of Labour Commission* (1894), vol. xxxv. pt. ii. p. 42); and, in Brassey's cases, selects his sub-contractor with the utmost care. Finally, this species was re-discovered about ten years ago, and called by

the hated name of "sweater"; for it was then a popular fallacy to identify sub-contracting and SWEATING; and nail- and chain-making, and cheap tailoring, and a few other unskilled and therefore overcrowded trades, were adduced in support of this theory. The history of nail- and chain-making is a replica of that of hand-loom weaving. About 1870 list-prices, estimated waste, and unpaid learners, were being superseded, and the non-manufacturing shop-keeper or "fogger" first appeared; and master-manufacturers' factories with their improved discipline and machinery began to grow on the ruins of the doomed domestic workshops, and the "master worker," passing through the stage of sub-contractor into that of "little master," began to cut himself adrift from the master-manufacturer, and to buy his own iron from, and to sell his own chain and nails to, the "fogger." Briefly, the old system is dying, and the new being born. Cheap tailoring is permanent, but its forms perpetually change: (1) is usually a shopkeeper who begins on his materials, then lets them out to the (2) "garret master"; for it is the same story over again, but (4) and (5) are fused, the ill-paid learners being called "greeners," button-holing is often sub-sublet, and the "garret master" turns "little master" in hard times. This "garret" or "little master" is he who chastises his employees with whips and himself with scorpions, but it is impossible to condemn the system without condemning competition, which would be useless, or home work and work in the homes of one's friends, which would be unnatural. Granted that where unrestricted competition, which does not include competition between the skilled, is grafted on the mediæval stock, danger results, yet the danger may be lessened: our war office introduced stipulations against out-workers (*c.* 1882); the London county council (1889) insert in their contracts stipulations for usual or trades union hours and wages, all School Board (1889) and government (1891) contractors undertake to pay specified or usual wages, or wages above a minimum, and similar provisions have been widely adopted by public bodies, and the Factory Act 1891, § 27, compels certain tradesmen to register out-workers. Similar clauses have passed into bye-laws, state laws (New York), and even constitutions (Utah), in America. One solution clearly lies in this method of increasing the employers' responsibility without impairing the sub-contractors' independence. But this solution only touches some artisan sub-contractors and contractors; others, and all the little masters—who are economically indistinguishable—are left untouched. It may be doubted whether the evils associated with the latter can be removed except by sanitary legislation, by example, by publicity, and public opinion. The tap-root of the evil is an ignorant recklessness on the part of customers as well as of employers as to how, when, or where a thing is done, provided that it is done.

[The authorities for the last part of this article are: *Reports of the Select Committee of the H. of L. on Sweating* (1888), vols. xx. xxi. (1889), vols. xiii. xiv. (1890), vol. xvii.—*Reports of the Royal Commission on Labour*, 1892, xxxiv.-xxxvi.; 1893, xxxii.-xxxix.; 1894, vol. xxxv.—United States, *Bulletin of the Department of Labour*, 1896, pp. 360, 721 *et passim.*—C. Booth, *Life and Labour of the People in London* (1891-97), vol. iv. ch. x.; vol. ix. ch. iv.—Lord Farrer, *London County Council Wages Bill* (1892) (a pamphlet).—Hansard, *Parliamentary Debates*, 13th Feb. 1891, comp. *Ec. J.*, 1896, p. 153.—B. Potter, "The Lords and the Sweating System," *Nineteenth Century*, vol. xxvii. p. 885.—*How best to do away with the Sweating System* (1892) (a pamphlet).—D. F. Schloss, *Methods of Industrial Remuneration* (1894), chs. xiii. xiv.—A. Sherwell, *Life in West London* (1897), pp. 86-120.] J. D. R.

SUBINFEUDATION. Land held in fee simple could not at common law be alienated so as to make the alienee hold of the chief lord unless the alienation extended to the whole of the land held by the same tenure. But the owner of a fee simple could always alienate by creating a sub-tenure, the alienee holding direct from such owner. The creation of a sub-tenure was called subinfeudation. Subinfeudation was abolished by the statute QUIA EMPTORES, temp. Edward I.

[Challis on *Real Property*, London, 1892.] J. E. C. M.

SUBSIDIES. The word is defined by Cowel (*Interpreter*) as "an aid, tax, or tribute granted by parliament to the king." That it was a parliamentary grant is the characteristic distinguishing it from the customs which were from time immemorial raised by royal prerogative. There were several kinds of subsidy. (1) The subsidy in excess of the customs and designated from the commodity to which it referred. (*a*) Such was the subsidy of wool and leather, linked to the ancient custom on wool and leather. (*b*) Another subsidy of the same class linked to the new customs by which duties were imposed upon imports and exports of wine and cloth by aliens. This subsidy, under the name of poundage (see TONNAGE AND POUNDAGE), was subsequently extended to every species of merchandise, whether carried by aliens or denizens, and under that of tunnage was a subsidy granted upon every tun of wine imported by aliens or denizens. (2) The subsidy on lands and goods in lieu of the ancient feudal levies, granted from about the middle of the 14th century. They took the place of the obsolete scutages and carucages, and were the precedents for the land-tax and income-tax of modern times (see TAXATION). All these subsidies, conformably to their origin, were limited in duration.

[Cowel, *Interpreter*, London, 1701.—T. Madox, *History of the Exchequer*, London, 1711.—S. Dowell, *History of Taxation*, London, 2nd ed. 1888, vol. i.—Hubert Hall, *History of the Custom-Revenue*, London, 1885, ii. 145. Id. *Antiquities of the Exchequer*, London, 1841, p. 217.]

L. S. L.

SUBSTITUTION, LAW OF. See LAW OF SUBSTITUTION.

SUCCESSION (SCOTS LAW). The guiding principle of Scots law, applied with but one exception of recent introduction, is that in matters of succession the relationship to be considered is relationship through the father, and through the father only. It will be convenient to make the explanation of the rules of succession hinge round the first personal pronoun.

If, then, I am a Scottish landowner, I may make my will as I please in respect to my land; but if I die without a will or a settlement, and thus leave my land to the ordinary law of intestate succession, my eldest son succeeds to it, or his heirs; failing them, my second son or his heirs, and so on; and failing all sons or their heirs, it passes as an undivided whole to all my daughters, who become heir-portioners, that is, they acquire equal interests in it, except that the eldest daughter gets the mansion-house, garden, and orchard, and in the event of a division of the estate, has the first right to claim her share of land out of the land immediately surrounding the house. It does not matter whether my sons are all by the same marriage or not; the list of them must be exhausted before my daughters can succeed. If I leave no descendants, my brother succeeds; that is, if I am the eldest brother of the family, my next younger brother or his heirs, and so on downwards; if I am the youngest, the next older or his heirs, and so on upwards; if I am a middle brother, first the next younger brother or his heirs and so on downwards; and on failure of them, my next elder brother or his heirs, and so on upwards. If I have no brothers of the full blood, my landed estate then goes to my full sisters (or their heirs) as heirs-portioners, as explained before. In the event of there being none such, the next in the order of succession are my half-brothers, being my father's, not my mother's sons, and their heirs, in a downward or upward order, as the case may be; and the next to them are my half-sisters, daughters of my father, or their heirs, who would take as heirs-portioners as before. In no case would landed property go to half-brothers or sisters the children of my mother, or their heirs, even though the estate may originally have come through my mother's family, for my father himself, if he be alive, stands next in the order of succession, and if he be not alive, his brothers and sisters first of the full blood, then of the half-blood, being children of my paternal grandfather, or their heirs, succeed in the same order as my own brothers and sisters or their heirs would have done. If all this fail, the succession goes back to my paternal grandfather and his descendants, such as a son of his by another marriage, and then to his brothers or sisters or their heirs, all as before and so on until an heir is found; and in the event of failure to find any heir, the estate reverts to the crown as *ultimus haeres*. In all this scheme, a person is always represented by his heirs, so that for example in the event of my having no issue, and my late only brother having only left daughters, the estate will go to these my nieces, who represent my brother as his heirs, while he, if he had been alive, would have been my heir. Such is a general account of the rules in succession to heritable or real property. Now let us turn to the rules in succession to movable or personal property. In this there is no preference given to sex or seniority: all who are equally nearly related divide equally, with one exception, which is that the heir to the heritable (*i.e.* real) property, if he is also one of the next of kin, is kept out of any share in the personal property unless he is willing to collate his heritage, that is, to throw his real property into hotchpot and divide all equally. It must, however, be kept in mind that under Scots law, even if a man makes his will, it can have no effect as regards personal property over more than the law allows. The moment he dies, his wife and children acquire a vested right to part of his movable property; one-third to the widow, and one-third to the children equally; or if there be no children, one-half to the widow; or if he survive his wife, one-half to the children equally. The only case in which he can make a will to take effect over his whole personal property is that in which he leaves neither wife nor child. In all this it is assumed that there have been no settlements or renunciations to vary the normal course of events. The only part of his movable or personal property in respect to which a man can die intestate is the part which it had been in his power to bequeath, and this is the only part to which the term "succession" is applied in the technical language of Scots law. Limiting ourselves then to such portion of the movable estate as might be bequeathed, the following are, speaking generally, the rules of succession to that portion in the event of there being no will. If I leave children, these children or their representatives will, whether they be male or female, or whether they be by one marriage or by more than one marriage, divide the available fund into equal shares: and if any of them be already dead, leaving their children to represent them, the respective shares of my deceased sons or daughters go to their children, my grandchildren, share and share alike within the limits of each family. But if I leave no descendants, then if my father be alive he takes one-half; if he be not alive, my mother, if living, takes one-third: subject to such deduction, if any, my full brothers and sisters or their representatives get the fund, share and share alike, those who have died before me being represented by their respective families of children; and if there be no full brothers or sisters, then my father's other children, my half-brothers or sisters, if there be any, or their representatives, get the fund on the same terms. Next, if all the preceding fail, and if there be half-brothers or sisters of mine who are my mother's children, or descendants of these, one-half of the available fund is to be distributed

among them. At this point, the rule that a family represents its deceased parent fails us, and we have to take the groups of persons actually existing in the same relation to me at the time of my death. Thus, subject to any such deductions as have already been referred to in favour of my father or of my mother, or of my half-brothers and sisters on the mother's side, my movable property next goes to be divided equally among all my paternal uncles and aunts of the full blood who actually survive me; and if they have all died already, to be divided equally among all my first cousins on the father's side, who happen to survive me; and failing them, equally among their children actually surviving me, and so on. Then if these relatives of the full blood all fail, the next in order of succession are the similar paternal relatives of the half-blood (through the father). In default of all the preceding, the same order of succession is applied to my father's paternal uncles and aunts, to his first cousins, and so on, first of the full blood, and then of the half-blood, and then to my grandfather's, and so on until at length, in default of heirs in movables, we arrive at the crown as *ultimus haeres*.

[Lord M'Laren's *Wills and Succession in Scotland*.] A. D.

SUCCESSION DUTY. See DEATH DUTIES; TAXATION.

SUGDEN, EDWARD BURTENSHAW, Baron St. Leonards (1781-1866), judge and jurist, was solicitor-general, 1829-30, lord-chancellor of Ireland 1835, and again 1841-46. He was lord high chancellor 1852, and was at the same time raised to the peerage as Baron St. Leonards.

He published among other things *A cursory Enquiry into the Expediency of repealing the Annuity Act, and raising the Legal Rate of Interest* (London, 1812, 8vo). This was issued in a series of letters. He deplores the iniquity of the sale of annuities, showing them to be a mere shift to evade the usury laws by raising money at an illegal rate of interest. The principal evils attending such sales are (1) the enormous interest —from 25 per cent, given on such loans; (2) the want of power in the grantor to redeem or repurchase the annuity. The bill for the repeal made all annuities redeemable, prohibited dealings with infants, moderated the allowance for brokerage, and gave the courts summary jurisdiction to set aside annuities under or over-valued. The bill did not, however, succeed in repressing grants of life annuities. Letters vii. and viii. deal with the inefficacy of the usury laws.

Sugden subsequently expanded these ideas into a volume entitled *Considerations on the Rate of Interest, Redeemable Annuities, and Foreign Loans* (London, 1817, 8vo).

The work opens with a brief recital of the former objections to usury; and quotes Bentham's justification of interest. It then enumerates the legislation on the subject from the 37 Hen. VIII. onwards. Sugden boldly advocates the raising of the legal rate of interest by 2 per cent, which would bring it to 7, instead of the 5 per cent at which it then stood. He blames the usury laws then in force for the commercial stagnation of the country, since loans cannot be procured on reliable security at 5 per cent. If the rate of interest were raised, the author insists that the usury laws would be no longer evaded by the sale of annuities. A. L.

SULLY, MAXIMILIEN DE BÉTHUNE, DUC DE (1560-1641). The Duc de Sully was the friend in childhood, the companion in arms, and minister of Henri IV. from his accession to the throne to his death. A Huguenot by religion, he did not follow his master when he became a Roman Catholic, though Henri advised him to do so. He belonged to that class of statesmen and economists who, like COLBERT and Chaptal, devoted themselves entirely to promote the prosperity of France.

Opposing the theory of the mercantile school (see MERCANTILE SYSTEM), and anticipating by more than a century the doctrines of the PHYSIOCRATS, Sully held that the source of wealth lay, not in commerce, in colonisation, and in coin, but in the products of the soil. It was he who said to the king that "husbandry and pasture were the two breasts which supplied nourishment to France (*les deux mamelles de la France*), and the real mines and treasure stores of Peru." He even opposed, though fortunately without success, the efforts of Henri IV. to acclimatise the mulberry and the silk industry in France. He said that France was not suited to such baubles:—in this he was obviously not a good prophet.

He regarded the manufacture of cloth with more favour, but he occupied himself principally and successfully with the reformation of the finances and the development of agriculture. Thus, "to prevent any misfortune to the country people," he busied himself in making roads, canals, and treaties of commerce—with Spain in 1604, England in 1606. The ordinary and extraordinary revenues of the treasury were raised by him in ten years—between 1600 and 1609—from 20,000,000 to 32,000,000 livres. This was done notwithstanding that he reduced the public debt and diminished the heaviest taxes on the peasant, such as the TAILLE. He desired to change the vexatious tax on salt, the GABELLE, into a monopoly to be worked by the state, as has since been done with tobacco. The assassination of Henri IV. prevented the realisation of this original plan.

Sully wrote his own memoirs under the title of *Économies Royales*. The first edition, 2 vols. folio, appeared in 1638. It has this curious feature that the author always speaks in the second person. The traditional explanation of this is that his secretary is said to have been instructed by Sully to describe his career in the form of an address to himself, saying, "You did such and such things on such a day." The most complete edition appeared in the *Collection des Mémoires relatifs à l'Histoire de France*, vols. xvi. xvii. A small edition, containing selected passages, with

an introduction by M. Chailley-Bert, appeared in the *Petit Bibliothèque Économique*, published by Guillaumin. C. G.

SUMPTUARY LAWS. The legislation of Greece and Rome included many laws of this description, which imposed severe restrictions on dress and entertainments.

Among the most extensive sumptuary laws of the middle ages are those of Philip IV. of France (reigned 1285-1314), who limited the number of dresses to be worn as well as their cost, and regulated food and dress according to rank. The sumptuary legislation of England, which we may take as generally illustrative of mediæval legislation on the subject, from the middle of the 14th to the middle of the 16th century, is chiefly directed against extravagance in dress, and is a sign of the diffusion of wealth which followed the growth of commerce and the break-up of the old distinction of classes. The principal English law dealing with food, the statute *De Cibariis Utendis*, restricted the meals of all classes alike, to two courses, with a third course on the principal feast-days, "and each mess of two sorts of victuals at the utmost, be it flesh or fish, with the common sorts of pottage." This law was passed in 1336, when Edward III. (reigned 1327-1377) was in need of supplies for war, which were not readily forthcoming, and its object was to check the extravagance of the people "whereby they are not able to aid themselves nor their liege lord in time of need, as they ought." The statute contains no penalty for its infringement, and though it was not repealed until 1856, it was probably never enforced even at the time of its enactment. The English victories in France and the spoil brought into England gave rise to much display and extravagance in dress; and in dress, the distinction of class which was bound up with feudalism was chiefly apparent, for among the higher classes it had reached a state of luxury and display when the houses and manner of living of all ranks were still comparatively simple. Hence, in 1363, by an act "for the outragious and excessive apparel of divers people against their estate and degree, to the great destruction and impoverishment of all the land," regulations were laid down for the dress of each class. Carters, ploughmen, and others whose goods did not amount in value to 40s. were to wear no cloth, but blanket and russet and a girdle of linen; those of higher degree were to dress in cloth of different prices according to their rank, the statute providing that all makers of cloth should supply the various qualities. A limited class only were allowed to wear cloth of gold or silver, silk or fur which came from abroad, and thus this statute, repealed the next year, was, like other English laws of this description, favourable to native industry. The importation in the 15th century of silken goods and other things, mostly for use in dress, and the "excessive and inordinate array and apparel" of both men and women, "to the impoverishing of this realm of England and to the enriching of other strange realms and countries," led to the prohibition, in 1463, of the importation of foreign wares, and to the elaborate regulation of the apparel of different classes. Ermine, velvet, satin, and "counterfeit cloth of silk resembling to the same," were prohibited to those below the rank of knight; and padding of clothes, and shoes with pikes more than two inches long, were forbidden. In 1482, materials to be worn were again regulated with the aim of compelling English people to wear native fabrics; woollen cloth made abroad was forbidden to those below the rank of lord, and importation of wrought silk was prohibited. Although the act of 1482 sets forth that for want of enforcement of former sumptuary laws, the "realm has fallen into great misery and poverty and like to fall into more greater," it is less stringent than that of 1463; women above the rank of labourer's wife are altogether exempted from it. The sumptuary laws of 1463 and 1482, as compared with the statute of 1444, regulating wages and the price of clothes given as part of wages, show a considerable rise in prices. While legislation was endeavouring to keep gold and silver in the kingdom, and the coinage was being repeatedly debased, sumptuary laws restricted the extravagant use of the precious metals in dress, and in 1515 those below the rank of knight were forbidden to wear a gold or gilt chain on pain of forfeiture. These laws were an expression of the general protective policy of England. While Edward III.'s statute of apparel set forth that it was directed against the "apparel of divers people against their estate and degree," in the later sumptuary legislation only economical considerations are advanced. The rich fabrics, which it was sought to limit to a few, were made out of England, and the object of the laws was not so much to encourage thrift as to prevent "the draining out of our treasures" into the ready hands of foreigners. Legislation against the importation of foreign manufactures was to some extent evaded by smuggling. "Infinitely more effectual than the preventive service of the ports were the sumptuary laws. People who broke these laws went about with the evidence of their offence on them" (Rogers). Edward VI. (reigned 1547-1553) and Elizabeth (reigned 1558-1603) enforced abstinence from flesh on fast-days in order to promote seamanship, and were careful to point out that their motives were not such as could be considered superstitious. The last sumptuary measure passed in Great Britain was a Scotch law of 1621. Most English laws of this nature were repealed in 1603. The economists of the 17th century looked unfavourably on sumptuary legislation, considering the consumption of luxuries good for trade, but the use of certain foreign fabrics has since been forbidden, and in 1745 a penalty of £5 was imposed on selling or wearing French lawn, with a direct view to the development of industry in England.

[W. Cunningham, *The Growth of English Trade and Industry*, 1890, 1892.—J. E. T. Rogers, *The Economic Interpretation of History*, 1888.—W. J. Ashley, *An Introduction to English Economic History and Theory*, 1893.—W. Longman, *The History of the Life and Times of Edward III.*, 1869.—*Social England*, vol. ii. ed. H. D. Traill, 1894.—Knight's *Pictorial History of England*, 1849.—W. Denton, *England in the Fifteenth Century*, 1888.—"Statutes of the Realm," *Encyclo-*

pædia Britannica.—Roscher, *Ueber den Luxus in Ansichten der Volkswirthschaft aus dem geschichtlichen Standpunkte.*] M. T. M.

SUPPLEMENTARY ESTIMATE. Whenever the vote assigned by parliament for any given head of expenditure during a current financial year has been expended, it is not lawful for the treasury to pay sums in excess of the vote without further parliamentary sanction. It is therefore necessary for the government of the day either (1) to submit to parliament a fresh estimate which may provide in advance sums of money to cover votes which are expected to be exceeded—this, of course, is the proper and legitimate course,—or (2) to obtain the sanction of parliament for expenditure on votes which have been already unavoidably exceeded—a course which has received the sanction of usage and convenience in many cases.

This further estimate is known as a "supplementary estimate." The term is in use also in all the British colonies, their financial systems being modelled more or less on that of Great Britain.

In the United Kingdom the supplementary estimates are usually taken in parliament in February, or about four weeks before the close of the financial year (see SUPPLY). C. A. H.

SUPPLY.

(1) Conditions of Supply, p. 488; (2) the Supply of Commodities, p. 488; (3) Diminishing, Constant and Increasing Returns, p. 489; (4) Components of Supply Price, p. 489; (5) Supply Price as connected with Rent and Quasi-Rent, p. 489.

Supply, pp. 488, 489; Supply and Demand, p. 490; Supply, Parliamentary, p. 496.

In the article on SUPPLY AND DEMAND, it is explained that (1) the *conditions of supply* of any commodity are known when the price which would lead sellers to offer any given amount of the commodity has been ascertained. This price in general would vary with the amount offered. Hence every commodity has its law of supply, which expresses the variations in supply-price which are correlated with variations in supply-amount. There are special difficulties in constructing such a law of supply, which do not arise generally in the construction of a law of DEMAND. For the supply of any commodity depends on the co-operation of many different kinds of productive agents, and the simultaneous and successive union of many different productive processes. Hence the supply-price of a commodity depends upon the current prices at which the services of the agents of production can be obtained, and the proportions in which these services have to be combined in producing the commodity. In the theory of the exchange value of commodities (see EXCHANGE, VALUE IN), it is necessary, for the sake of simplification, to assume that the rate at which each kind of agent has to be remunerated has been determined by general social conditions. These rates of remuneration are thus given independently of any conditions affecting the variations specially attaching to the supply of the commodity under consideration. On the other hand, the theory of DISTRIBUTION is concerned with the economic forces which determine the rates at which the several kinds of agents are currently remunerated. And here it is convenient to assume that the prices at which each kind of commodity can be sold have been determined independently of the rates at which the agents are remunerated. But this latter assumption requires very considerable modification if we are to avoid circular processes of reasoning.

(2) *The supply of commodities.*—The term *price* is a convenient abbreviation for a sum of money paid for a *unit* of any kind of commodity. The term *aggregate price* may be used for a sum of money paid for a certain given *amount* of the commodity. Hence the *aggregate price* is always the arithmetical product found by multiplying the *price*, per unit, by the *amount*. The supply-price of a commodity is found by adding together the prices which have to be paid to the different agents who contribute to the production of a *unit* of the commodity. In this connection the prices of the agents may be called the *component* prices, and the sum of these prices may be called the *resultant* supply-price. The term *expenses of production* is sometimes used in a slightly different sense from that of *supply-price*. For when different businesses are competing in the supply of the same kind of commodity to the same market, what are called the *expenses of production* in one business may be found to differ from the expenses of production in another business. And even in the same business the expenses of producing the earlier units may be less than those of producing the later units. Now the supply-price must be equal to the expense of producing that unit which is most expensively produced. This unit is technically called the *marginal unit*, and the expense of producing it is called the *marginal expense*. Hence we have the law:—*The supply-price of a commodity for any amount is equal to the marginal expense, per unit, incurred in producing that amount.* It follows that the aggregate supply price may be in excess of the aggregate expenses of production. This excess is called producer's surplus or PRODUCER'S RENT (*q.v.*), or, we may say that *each unit* (except the marginal unit) is produced at an expense less than the price for which the unit is sold; this difference constitutes the producer's surplus *for that unit*. Before referring to the difficulties connected with the theory of producer's surplus, it is necessary to point out its connection with diminishing or increasing returns.

(3) *Diminishing, constant, and increasing returns.*—The supply of a commodity is subject to diminishing, constant, or increasing returns, according as the price at which it is offered increases, remains constant, or diminishes as the amount supplied is increased. The production of every commodity is subject to two opposing tendencies; for as the scale of production is enlarged, it is necessary to have recourse to less economical combinations of land, labour, and capital, so far as more labour and capital have to be concentrated on a given piece of land; and, on the other hand, opportunities arise for the more economic use of division and co-operation of labour, and of aiding labour by machinery and so on. If the former tendency overbalances the latter, the commodity is subject to diminishing returns; if the two tendencies balance one another, to constant returns; while, if the latter tendency overbalances the former, the commodity is subject to increasing returns. An increase in the aggregate scale of production thus entails changes in the prices at which *all* the units in the aggregate can be produced. We cannot then find the aggregate expenses of production on a larger scale by merely adding the expenses of the new units to those previously incurred on the smaller scale. The marginal expense may increase or diminish as the scale of production is enlarged. Where we speak of *marginal* expense, we imply the existence of a *producers' surplus*. Such a surplus may be spoken of in the case of INCREASING RETURNS as well as in that of DIMINISHING RETURNS. This can be shown diagrammatically by constructing what Professor Marshall calls a *particular expenses curve* for each different scale of production. The particular expenses curve indicates at the same time the marginal expense and the producer's surplus, corresponding to each aggregate amount produced. The supply-curve is the *locus of the terminal points* of all the different particular expenses curves.

(4) In analysing the *components of supply-price*, it is legitimate and convenient to neglect the variations in the expenses at which the different units are conceived to be produced, and thus to defer consideration of producer's surplus. The prices of all the agents are understood to be determined by the general forces of competition. When an agent is employed in any particular industry, the price which he can demand is a price independent of the conditions of that particular industry; for it is the price *which he could have secured if he had been employed in some other alternative way*. In this sense, even a piece of land hired by a farmer for any particular agricultural use has a current price, viz. the price which some other farmer would be willing to pay. The individual farmer, therefore, regards "rent as entering into the expenses of production." Similarly, the wages paid to different classes of labour, and the interest for the use of any capital that is borrowed, are determined at current rates depending on general social conditions. There remain *profits, i.e.* the return to the undertaker of the business, who also owns some of the capital employed in it. So far as, under the influence of competition, society may be said to have to pay business ability at a certain rate, we may finally include *profits* in the supply-price of any commodity. The analysis of supply-price can of course be carried out into much greater detail, which will be found in the modern text-books of economics (see COST OF PRODUCTION).

(5) *Supply-price as connected with rent and quasi-rent.*—When the total amount of a commodity is conceived to have been produced at a different expense in different competing businesses, the supply-price is the same as the marginal expense, and any unit, except the marginal unit, sells for a price greater than its expense. The excess of the selling price of the unit over its expense of production is the producer's surplus for that unit. The expenses of production must now be defined more exactly. When we contrast the expenses of production with the producer's surplus, it is understood that the expenses have been incurred under the *anticipation* of a remuneration which will be covered by the price of the commodity. It *is this anticipation* which operates in determining the amount of the commodity that is produced. Any remuneration which is obtained independently of the influence of anticipation in determining the amount produced is of the nature of a producer's surplus. Now we may consider the effect of anticipation as exerting its influence over a longer or a shorter period of time. (*a*) If a period sufficiently long to provide the specialised capital, material or personal, in adaptation to the anticipated demand is taken into consideration, then the expenses of production will include *the expenses of producing such specialised forms of capital*. The only kind of remuneration that here constitutes producer's surplus is the remuneration for the use of *natural agents* (see AGENTS OF PRODUCTION), of which the quantity applied in the industry cannot be increased under the stimulus of anticipation. Such a natural agent would be *land used for agricultural purposes*. Hence we arrive at the well-known doctrine of RICARDO that "the rent of land used in agriculture does not enter into the expenses of production which determine the supply-price of agricultural produce." (*b*) If now we consider a shorter period of time, commencing after specialised capital has been already created, then the expenses of producing this capital cannot any longer operate as an influence determining the amount of the commodity produced. The

remuneration received by the owners of such specialised capital is excluded from the expenses of production, and constitutes a *quasi-producer's-surplus; i.e.* an element which, for the shorter period under consideration, does not influence the amount of the commodity produced, and thereby determine its price. So far the theory of producer's surplus has been shown to depend on considerations of the *period of time* during which the influence of anticipation is conceived to operate. A further qualification is needed, which depends on the *range of alternative uses* to which an agent can be put. Thus the Ricardian theory of agricultural rent would have to be differently interpreted, according as we consider *agriculture in general*, or only some particular agricultural produce, such as *wheat*. Any piece of land could be applied to the production either of wheat or (say) of barley. The producer's surplus, which corresponds to the price of *wheat*, is not the whole rent of the land, but only the excess of the rent over that rent which could have been obtained if the land had been turned, say, to the growing of barley. It is this excess value which may be strictly said not to enter into the determination of the price of wheat. For if a *tax*, not exceeding the above value, were levied on the wheat-growing land, while barley-growing lands were exempt, the burden of the whole tax would fall on the receiver of rent, and there would be no rise in the price of wheat. The true surplus, which does not enter into the price of *wheat*, is, therefore, only the excess of the rent on wheat-growing lands over the rent that could be obtained by some alternative mode of employing the land. Thus if the tax on any piece of land that is growing wheat exceeded this value, the land would, in time, be turned, say, to barley-growing; the area for wheat-growing would be restricted, and the price of wheat would rise. Summing up, we find that the theory of producer's surplus has to be differently interpreted (1) according as a *longer or shorter period of time* is considered, during which the influences of anticipation are allowed to operate, and (2) according as a *larger or smaller range of alternatives* is considered in regard to the directions in which an agent may be employed.

[The above treatment of the problems of supply follows in the main the lines laid down by Prof. Marshall, *Principles of Economics*, vol. i. In particular see bk. v., chs. v. viii. ix. xiv.; and bk. vi., chs. v. viii. ix.] W. E. J.

SUPPLY AND DEMAND.

(1) The General Theory of Supply and Demand, p. 490; (2) Consideration of the Term Supply and Demand, p. 492; (3) Equilibrium between Supply and Demand, p. 493; (4) Joint and Alternative Demand, Joint and Alternative Supply, p. 494; (5) Connection between the Theories of Distribution and of Exchange, p. 495.

1. *The General Theory of Supply and Demand.*—The central problem of economic theory is an enquiry into the balancing of two opposed classes of motives, the one consisting of *desires* for certain sources of satisfaction or enjoyment, the other consisting of *aversions* to certain forms of sacrifice or toil necessarily undergone in order to gain command over those sources of satisfaction. The simplest case of balance between desire for a COMMODITY and aversion to a DISCOMMODITY is found when a man directly satisfies his own wants by his own work. The problem is solved by applying two simple principles which are complementary to one another. The first principle is the LAW OF DIMINISHING UTILITY, which may be expressed as follows: The utility afforded by any increment of a commodity diminishes with increase in the amount of the commodity possessed. The second principle is the *Law of Increasing Disutility*, which may be expressed in corresponding terms thus: The disutility incurred by any increment of a discommodity increases with increase in the amount of the discommodity undergone. Thus, if a man has to work to obtain his food, we may measure the amount of commodity acquired by the *weight* of the food, and the amount of discommodity by the *time* he works. The two laws state: (1) Every additional ounce of food yields him a smaller increment of utility; (2) Every additional hour of work yields him a greater increment of disutility. It is then obvious that the balance between desire and aversion is reached by working just so many hours and thus obtaining just so much food, as that the additional disutility of the last hour's work is equal to the additional utility of the food obtained by that last hour's work. In EQUILIBRIUM, the marginal disutility of the last piece of work equals the marginal utility of the last piece of food. The result may be expressed in another way which is important in further developments. Each hour's work involves a certain disutility which is rewarded by a certain amount of food yielding utility. The economic problem is thus solved by *maximising the surplus of utility over disutility*. This surplus is a combination of producer's and consumer's surplus, which, in the simplest case, accrues to the same individual man. This surplus is a purely psychological conception, and cannot be measured in objective units. On the other hand, the amount of food and the amount of work *can* be measured in objective units; the former in *lbs. weight*, the latter in *hours*. We have then to conceive of one law of variation which connects the amount of food with the amount of utility, and a second law of variation which connects the amount of work with the amount of disutility. These two laws are purely psychological, depending on the individual's private character. But it will be seen that these two laws alone

are not sufficient to solve the problem. For nothing has been said as to the relation between the amount of work done and of food produced. We cannot assume that every fresh hour of work will produce an equal increment of food; and hence we must introduce a third law of variation, which will explain how much food corresponds to each several quantum of work. This law mediates between the law connecting amount of utility with amount of food and the law connecting amount of disutility with amount of work. At the basis of the theory of supply and demand we thus find three kinds of laws of variation: (1) The law of utility connecting commodity acquired with pleasure afforded; (2) the law of disutility connecting discommodity undergone with discomfort incurred; (3) the law of efficiency, connecting discommodity undergone with commodity acquired.

It is only the third of these three laws of variation which can be objectively ascertained. Whereas the variation of utility is always subject to the principle of diminution, and the variation of disutility to the principle of increase, the variation of efficiency which connects the objectively measured amounts of commodity and discommodity, may be subject to a principle either of increasing, of decreasing, or of constant returns. The further investigation of the law of efficiency will be taken up later.

We will now consider how it is possible to give an objective measure of utility and of disutility. This is most simply effected by means of *money*. If a man has money, he may put a *price* on his satisfactions and his sacrifices; and, thereby, they become measurable through their exchange-value. In this way the law of variation of utility is transformed into a law of variation of *demand* for a commodity, which assigns for every several amount of the commodity the *price* at which that amount will be purchased. Similarly, the law of variation of *disutility* is transformed into a law of variation of *supply* of a service, which assigns for every several amount of the service the price at which that amount will be offered. It will be seen that the laws of supply and demand in their simplest form are identical. For the supply of a service may be regarded as a demand for the income derived from that service; and the demand for a commodity may be regarded as a supply of money offered for the commodity. In both cases we may speak of some utility to be acquired and of some sacrifice to be incurred. The law connecting the amount sacrificed with the amount acquired will be as follows:

Any change favourable to the individual, in the terms on which he can secure an acquisition in return for a sacrifice, will induce him to *demand* a larger amount. When the terms are comparatively unfavourable, this larger amount will be obtained by an increased offer; until with increasingly favourable terms, the offer reaches a maximum; after which, when the terms have become comparatively favourable, he will be securing an increasing amount in return for a lower offer. There is thus a certain *price* which will induce him to make the highest offer. This point might be called the critical point in the curve connecting amount offered with amount demanded. He would always be increasing his acquisition under increasingly favourable terms; but for sub-critical points, this would involve an *increasing* outlay of sacrifice, and for supra-critical points, this would involve a *decreasing* outlay of sacrifice. A few figures will make this clear. Consider a man's annual demand for coal. At the price £7 a ton, the amount demanded might be 1 ton involving an outlay of £7; at £6 a ton, amount 1½ tons, involving outlay £9; at £5 a ton, amount 3 tons, involving outlay £15; at £4 a ton, amount 4 tons, involving outlay £16; at £3 a ton, amount 5 tons, involving outlay £15; at £2 a ton, amount 6 tons, involving outlay £12; at £1 a ton, amount 7 tons, involving outlay £7. Here the critical price is £4 a ton, with maximum outlay £16. As price falls, the elasticity of a man's demand may be normally expected to decline; so that, while at relatively *dear* rates, he is induced to spend *more* as the article falls in price, at relatively *cheap* rates he is induced to spend *less* as the article falls in price. Separating the dear and the cheap rates, there is the *critical rate*, at which his expenditure reaches its maximum.[1] The same principle applies as regards the supply of services in production. For example, if a man's wages are relatively *low*, he will be induced to work *longer* hours for a higher wage per hour; but, if his wages are relatively *high*, he will be induced to work *shorter* hours for a higher wage per hour. In both cases the increase in the *rate* of wages per hour will lead to an increase in the *total day's wage*. The same applies to capital. If the rate of interest is relatively *low*, the capitalist is induced to increase his investments under the stimulus of a higher rate of interest; but if the rate is relatively *high*, he will be induced to diminish his investments under the stimulus of a higher rate of interest. In both cases, the increase in the *rate of interest* will involve an increase in the *total income* derived from capital investments. It might be thought that the teachings of history are in direct opposition to this last theoretically obtained result. But the answer to this objection will throw further light on the real meaning of the law. The law presupposes *constancy in the conditions of supply*

[1] It is not strictly necessary to assume *only one* maximum point; but the above account is sufficiently accurate for most cases.

of capital, or of demand for the income that can be derived from investments. Now during the period in which the rate of interest has fallen, the conditions affecting the supply of capital have changed enormously. The accumulated wealth—out of which the savings of the community are derived—has been rapidly increasing; and the *habit* of saving has at the same time probably been fostered. This accumulation of wealth in its turn has been partly due to the discoveries made in the industrial arts. These discoveries have been chiefly operative, as supplying fresh opportunities of displacing labour by capital; so that their *primary* effect would have been to *raise* the rate of interest and lower the rate of wages. But the secondary effect has been to increase the amount of capital relatively to labour to such an extent that the rate of interest has fallen. In this case it is practically misleading to regard the conditions of supply of capital as independent of the conditions of demand for capital. For as the demand for capital is raised—owing to industrial inventions,—the income of that class out of whose resources most of the new investments are made is at the same time increased; and thus the very same conditions which produce a change in the *demand* for capital produce also a change in the conditions affecting the *supply* of capital. When it was said that at a relatively low rate of interest an increase in the rate would lead to larger investments, and a relatively high rate of interest would lead to smaller investments, it must be remembered that what is relatively low at one period may be relatively high at a later period; if the amount of accumulated wealth at the former period is considerably less than that at the later. At the present time we could say that a rate of 4½ per cent is *relatively high*, while fifty years ago it would have been *relatively low*.

2. *Considerations of the Term, Supply and Demand.*—Both the terms supply and demand are often used in a loose way, which renders it impossible to express economic theory in a quantitatively exact form. For this purpose it is necessary to define and distinguish the three phrases "conditions of supply," "supply-amount" and "supply-price," and the three phrases "conditions of demand," "demand-amount," and "demand-price." The conditions of supply of a commodity or service must always be considered as independent of the conditions of demand for that commodity or service—at least in the abstract theory. In speaking of *given* conditions of supply, we mean that the following determining factors are assumed to be constant, viz. the character and resources of those who offer the commodity or service, their individual or collective efficiency, and the knowledge of the industrial arts. In the same way, the conditions of demand are said to be *given* when we assume the following determining factors to be constant, viz. the resources and the tastes of those who wish to buy the commodity.

Corresponding to any given set of conditions of supply, we construct supply-schedules or SUPPLY-CURVES (*q.v.*). This gives the relations of variation between the supply-price and the supply-amount. It is expressed in a series of hypothetical or conditional statements; thus: "If the price were so much, the amount offered would be so much; if the price were so much again, the amount offered would correspondingly vary, and so on." The relations thus expressed are spoken of as relations between supply-price and supply-amount.

Similarly we construct demand-schedules or DEMAND-CURVES (*q.v.*) corresponding to any given set of conditions of demand. This again is expressed in a series of hypothetical statements: "If the price were so much, the amount demanded would be so much, and so on."

Hence neither the conditions of supply nor the conditions of demand are sufficient alone to determine either the price or the amount at which the sale or purchase will be transacted. In all cases the *two* sets of conditions taken together are needed to determine the two unknowns—*price* and *amount*.

The old controversies as to whether it was demand or supply which settled price have been finally abandoned. It is now seen that where price seemed to be determined by one or other of these two agencies exclusively, this was because the amount was tacitly assumed to be fixed by the conditions of the other agency, or *vice versa*. Thus we have four possible limiting cases which appear at first sight to be exceptions:

(1) Where the amount supplied cannot be varied we may say roughly "Price is determined by (the conditions of) demand." [Inelastic Supply.] *E.g.* natural agents; pictures of great artists.

(2) Where the amount demanded cannot be varied we say roughly "Price is determined by (the conditions of) supply." [Inelastic Demand.] *E.g.* absolute necessaries in a stationary population.

(3) Where the supply-price cannot be varied we can say "Amount is determined by (the conditions of) demand." [Constant Returns.] *E.g.* long-established manufactures of staple commodities.

(4) Where the demand-price cannot be varied we can say "Amount is determined by (the conditions of) supply." [This last case could hardly arise, except under the influence of governmental interference, or in very exceptional cases of the force of custom or habit, such as the penny newspaper.]

The *price* and *amount* which are determined

so as to satisfy conjointly the conditions of supply and the conditions of demand are spoken of as the equilibrium-price and the equilibrium-amount in reference to those conditions. It is not meant that no transactions take place in the market except at the equilibrium-price. What is meant is that when this equilibrium-price and the corresponding equilibrium-amount are reached, then the conditions of supply and demand would not tend to produce any re-adjustment of price. For most practical purposes we may limit ourselves to *stable equilibria*, and in this case we can express the actual facts more precisely. Any accidental variation from the price that corresponds to stable EQUILIBRIUM will bring into operation forces tending to restore the price to its equilibrium value. An equilibrium is stable under the following conditions: viz. when for amounts less than the equilibrium-amount, the supply-price is less than the demand-price, and for amounts greater than the equilibrium-amount, the supply-price is greater than the demand-price. Thus, if the required supply has been underestimated, producers find that they are getting a higher price than is sufficient to remunerate them; this encourages a larger supply and leads to a fall in the demand-price. Conversely, if the supply required has been overestimated, producers find that they are receiving a lower price than is sufficient to remunerate them; this checks the supply, until the demand-price rises to its equilibrium value.

3. *Equilibrium between Supply and Demand.*—The equilibrium between supply and demand of commodities depends essentially upon the action of producers in *anticipating* the demand. So far as the forecasts made by those who supply a market are correct, we can say that the amount supplied is such that the supply-price is equal to the demand-price. Hence the element of *time* enters into any consideration of equilibrium. For the processes of production occupy a longer or shorter period of time before the commodity is finished and transferred to the consumer in a condition for direct use or enjoyment. The most serious difficulties that arise in connection with the equilibrium of demand and supply depend upon the interval of time which elapses between the earlier applications of labour and capital and the final transference of the finished commodity into the hands of the consumer. Prof. Marshall has proposed to distinguish the discussions of equilibria between demand and supply according to the length of the period which we may take into consideration in defining supply-price. The supply-price corresponding to any amount may be defined in general as the price at which, under the circumstances of the case, it would be worth the while of the producers to sell that amount. But in this anticipation any *differences in the circumstances of the case* would be liable to make important differences in the supply-price calculated in reference to those circumstances. For instance, if expenditure has already been incurred in creating specialised capital, either material or personal, the estimate of the price at which it would be worth while supplying the commodity might be very different from that based on the state of things previous to this expenditure, when the outlay could be freely directed towards the production of suitable buildings and machinery, and towards the training of suitable skill and knowledge. The circumstances in which the amount of specialised material and personal capital is given will thus constitute the conditions of supply for a relatively short period between production and consumption; and the circumstances in which no capital has been fixed and specialised for the production of the commodity will constitute the conditions of supply for a relatively long period between production and consumption (see PRICES, LONG-PERIOD SUPPLY, SHORT-PERIOD SUPPLY). The equilibrium obtained by equating the *long-period supply-price* with the demand-price is called the *normal* equilibrium; and that obtained by equating the *short-period supply-price* with the demand-price is called the *sub-normal* equilibrium. Finally, if we limit the period to its utmost, we shall regard not only the fixed instruments of production as given, but even the amount of the finished commodity itself. In this case, unless the sellers are in a position to withhold their offer and can speculate for a rise in price, the conditions of demand taken by themselves may be regarded as determining the price at which the commodity will be sold. Such an equilibrium is called a *temporary equilibrium*. In each of the three cases, the equilibrium-price is a theoretically determined or *ideal* price. With this *ideal* price we must contrast and connect the actual or *market price*. The market-price oscillates about the theoretically determined equilibrium-price. Thus, during the day, say, the actual price may fluctuate above and below the price corresponding to the temporary equilibrium. Again, the actual prices occurring during a short period would fluctuate above and below the price corresponding to a sub-normal equilibrium; and those occurring during a long period would fluctuate about the price corresponding to a normal equilibrium. Roughly speaking, we can say that the normal price is the average of the actual prices taken over a long period; and that the sub-normal price is the average of the actual prices taken over a short period. For the prices ruling throughout any period might be expected to fall as often and as much above as below the anticipated price, owing to deficiency or excess in the amount offered during the period. Of course the market-price would throughout approximate more closely to the equilibrium-price the more

quickly the commodities were consumed and reproduced.

But further when we regard the equilibrium-price as the average of the varying market-prices, we presuppose constancy in the conditions of demand and supply during the period over which the average is taken. Owing to changes of fashion or taste, the conditions of demand may be continually varying; and owing to changes in the industrial arts, the conditions of supply may be continually varying. Hence it would generally be impossible to determine the equilibrium-price by averaging the variations in market-price during any period of time.

4. *Joint and Alternative Demand, Joint and Alternative Supply.* — The general theory of distribution and exchange requires us to note that the amounts and prices of different commodities are often very closely connected either through the conditions of demand or through the conditions of supply or both. There are four typical cases in which this dependence is strikingly manifest. These are (1) *Joint Demand*, (2) *Joint Supply*, (3) *Alternative Demand*, (4) *Alternative Supply*.

The following brief definitions may be given:—

(1) A demand for "A and B" is called a *joint demand*;
(2) A supply of "A and B" is called a *joint supply*;
(3) A demand for "A or B" is called an *alternative demand*;
(4) A supply of "A or B" is called an *alternative supply*.

The terms above given are chosen to indicate in each case whether the interconnection comes primarily from the side of demand or from the side of supply. But it will be found in each case that the phenomenon can be regarded from the opposite point of view.

Thus we shall find that,

(1) *Joint Demand* involves *Complementary Supply*;
(2) *Joint Supply* involves *Complementary Demand*;
(3) *Alternative Demand* involves *Competitive Supply*;
(4) *Alternative Supply* involves *Competitive Demand*.

In the further explanations which follow the relations will be described in an exact form which is often only approximately realised in actual economic phenomena. An ideal simplicity is introduced in order to give greater clearness to the exposition. We shall derive formulæ for each of the four cases separately, but it will be convenient at once to anticipate the results by pointing out the analogies that will be disclosed between the four cases. It will be found that in passing from the formula of joint demand to that of joint supply, or from the formula of alternative demand to that of alternative supply, we shall have merely to interchange throughout the terms *supply* and *demand* or *demand* and *supply*. And again, in passing from the formula of joint demand to that of alternative demand, or from the formula of joint supply to that of alternative supply, we shall have merely to interchange thruoghout the terms *price* and *amount* or *amount* and *price*. These symmetrical results will be found helpful in obtaining a general survey of the problems investigated.

In the cases of joint demand and joint supply, we shall find that whereas the amounts of the two constituent articles vary in the same direction, their prices will tend to vary in opposite directions. In the cases of alternative demand and alternative supply, on the contrary, the amounts will vary in opposite directions, while the prices will vary in the same direction.

Joint demand, involving complementary supply. This deals with cases in which things are not demanded separately, but have to be used in conjunction with one another in order to meet the needs of consumers; such as *wood* and *bricks* in the building of a house, *blades* and *handles* in the manufacture of a knife. The connection here is from the side of demand, while the conditions of the supply of the two factors may be assumed to be independent of one another. The processes of supplying the two factors *complement* one another, so as to produce a commodity which it is worth while for the ultimate consumers to purchase. Thus the supply-price at which any given amount of the finished article will be offered is the sum of the supply-prices of the several factors which contribute their part in the total productive process. Equilibrium between demand and supply is, therefore, reached at that amount for which the demand-price of the finished article is equal to the sum of the supply-prices of the several factors which co-operate.

Joint supply, involving complementary demand. This deals with cases in which things cannot be produced separately, but are produced together by a single process, such as *beef* and *hides*, or *wheat* and *straw*. The connection here is from the side of supply, while the conditions of the demand for the two commodities may be assumed to be independent of one another. The two things are produced by the same process, so that the expenses of producing both the things together are the same as the expenses of producing one of them alone. The demands for the two commodities *complement* one another in making it worth the while of producers to meet the two independent needs. Thus the demand-price at which any given amount of the productive process will be called for is the sum of the demand-prices of the several commodities which are jointly produced in the process. Equilibrium between supply and demand is, therefore, reached at that amount for which the supply-price of the productive process is equal to the sum of the demand-prices of the several articles jointly produced.

Alternative demand, involving competitive supply. This deals with cases in which the same ultimate need can be met by one or other of two commodities equally well, so that either

can be used as an equivalent for the other, or instead of the other, it being understood that the more of the one article is used the less of the other will be in consequence needed. Thus it can be said with approximate accuracy that the demand for non-intoxicating stimulants is an *alternative demand* for tea or coffee. The connection here, as in joint demand, is from the side of demand, while the conditions of the supply of the two articles may be assumed to be independent of one another. The sources from which the alternative demand is met *compete* with one another, because the more that is taken from one source the less *ceteris paribus* will be taken from the other. The simplest possible case of alternative demand, or competitive supply, is that in which precisely the same quality of article is supplied from different sources, as corn from America and corn from Russia. Let us return, however, to the case of *tea* and *coffee*, and state the simplest assumptions necessary for regarding the two commodities as strictly alternative in demand. We assume that a certain amount of tea, say 2 lbs., yields always the same utility as a certain amount of coffee, say 3 lbs. Hence the conditions of demand will cause the price of 2 lbs. of tea to be always equal to that of 3 lbs. of coffee, however the actual price and amount of tea and coffee may vary. With these quantities as units, *the price of tea is always equal to the price of coffee.* Then the supply-amount of non-intoxicating stimulants which will be offered at any given price is the sum of the supply-amounts of tea and of coffee. Equilibrium between demand and supply is, therefore, reached at that price for which the demand-amount of non-intoxicating stimulants is equal to the sum of the supply-amounts of tea and of coffee.

Alternative supply, involving competitive demand. This deals with cases in which the same industry or the same productive agent can be applied to the production of one or of another utility indifferently, it being understood that the more of the one utility is produced, the less of the other can be in consequence produced. Thus it can be said that a piece of land can be applied either to pasture or to other agricultural purposes; or, with approximate accuracy, that the dairy business can be applied indifferently to producing *cream* or *butter;* the poultry business to the production either of *chickens* or of *eggs.* The connections here, as in joint supply, are from the side of supply, while the conditions of the demand for the two articles may be assumed to be independent of one another. The needs which are met by the alternative supply may be said to *compete* with one another, because the more is supplied for one need, the less, *ceteris paribus*, will be supplied for the other. The simplest possible case of alternative supply, or competitive demand, is that in which precisely the same kind of service or product is applied to meet different classes of consumers, as coal for domestic and coal for industrial uses. Let us return, however, to the case of cream and butter, and examine the simplest assumptions necessary for regarding the two commodities as strictly alternative in supply. We assume that a certain amount of cream, say one pint, involves the same expenses of production as a certain amount of butter, with skimmed milk thrown in, say 1 lb. Hence the conditions of supply will cause the price of one pint of cream to be always equal to that of 1 lb. of butter, however the actual price and amount of butter and cream may vary. With these quantities as units, *the price of cream is always equal to the price of butter.* Then the demand-amount of dairy productions, which will be required at any given price, is the sum of the demand-amounts of butter and of cream. Equilibrium between demand and supply is, therefore, reached at that price for which the supply-amount of the dairy industry is equal to the sum of the demand-amounts of butter and of cream.

The most important problems under the above four heads relate to temporary disturbances in the supply or in the demand of *one* of the connected commodities. The problem is then to discover the virtual or derived schedule of demand or of supply of the commodity of which the supply or the demand is temporarily disturbed. The following formulæ will be seen to be of general application:—

Joint demand.—If the supply of handles is temporarily disturbed, then, for each several amount of knives, the virtual demand-price for handles = the demand-price for knives *minus* the supply-price for blades.

Joint supply.—If the demand for beef is temporarily disturbed, then, for each several amount of slaughtered bullocks, the virtual supply-price for beef = the supply-price for slaughtered bullocks *minus* the demand-price for hides.

Alternative demand.—If the supply of tea is temporarily disturbed, then, for each several price of non-intoxicating stimulants, the virtual demand-amount of tea = the demand-amount of non-intoxicating stimulants *minus* the supply-amount of coffee.

Alternative supply.—If the demand for cream is temporarily disturbed, then, for each several price of the dairy productions, the virtual supply-amount of cream = the supply-amount of the dairy processes *minus* the demand-amount of butter.

5. *Connection between the Theories of Distribution and of Exchange.*—The investigation of the problems of joint and alternative demand, and of joint and alternative supply, is necessary in order to bring into connection the theories of

DISTRIBUTION and EXCHANGE. Distribution deals with the prices and amounts of the several agents of production. Exchange deals with the prices and amounts of the several commodities for consumption. The demand for consumption-goods is a *direct* demand; that for the agents of production whose services complement one another in producing finished goods is an *indirect* demand. Thus the formulæ of joint demand giving the virtual or derived demand for any factor, has to be applied in determining the indirect demand for the several agents of production. Again, the supply of productive agents is a *direct* supply; that of the finished commodities is an *indirect* supply, and hence the formulæ of joint demand have again to be applied in determining the supply-price of a finished commodity. Moreover, every agent of production may, at different stages in the productive process, apply himself in either one of various employments; and hence the formulæ of *alternative supply* become of essential importance. The element of *time* is essential in considering the effect of alternative openings possible for an agent; for so far as his employment has been already specialised, these possible openings are restricted in number. The theories of PRODUCER'S RENT or producer's surplus are founded upon this consideration. All the problems of distribution will thus be seen to depend upon the investigation in particular of *joint demand* and *alternative supply*. The laws of the direct demand for consumption goods, and of the direct supply of production agents, were formulated in the first section of this article. It was there pointed out that a *law of efficiency* of production was needed to mediate between the ultimate principles of *demand* and *supply*. Everything has its own law of efficiency. In examining the law of supply of finished commodities, it is convenient to regard the prices of the *agents* as already determined. We then can calculate the resultant supply-price by adding the supply-prices of the co-operating agents, on the assumption that they will co-operate in such proportions as will secure the most efficient result. This is the assumption underlying the law of substitution. In examining the law of demand for productive agents, it is convenient to regard the prices of the *finished commodities* as already determined. The calculation of the demand-price for an agent here requires chiefly subtraction instead of addition. The determination involves very serious complexity. Briefly we can say that the demand-price of an agent is found by subtracting from the price of the finished commodity the supply-prices of the remaining agents. Rather more accurately: the demand-price corresponding to any amount of an agent's services is found by determining its net marginal efficiency; *i.e.* the value which would be added to the total product by employing an additional unit of its services, on the assumption that the amounts and prices of all the other agents are kept constant. This indicates the lines on which the complex problem of distribution has to be solved.

W. E. J.

SUPPLY, PARLIAMENTARY.

General Remarks, p. 496; Estimates, p. 496; Motions and Resolutions, p. 497; Appropriation Act, p. 497.

General Remarks.—A parliamentary term for the grants of money made by parliament to meet the crown's demand for "aids and supplies" for the maintenance of the public service, used in the speech from the throne at the opening of each session. That demand is necessary, for, whilst the right of "granting aids and supplies to the crown is in the Commons alone," unless the crown has recommended the expenditure they cannot vote the smallest grant of public money; and even when a grant of money is finally sanctioned by the appropriation act, it cannot be issued by the treasury department from the CONSOLIDATED FUND, unless the issue is authorised by an order under the sign manual of the sovereign. By royal command, also, estimates of the annual public expenditure containing statements of the total sums required with details of the expenditure divided into sub-heads and items are submitted to the House of Commons, who thereupon refer these estimates to a committee of the whole house, known as the committee of supply, appointed at the beginning of every session, and kept on foot until the supplies for each financial year have been voted.

Estimates.—The estimates presented at the opening of each session are the ordinary estimates for the service of the current year, for grants on account, and for supplementary and excess grants. Estimates, also, for a vote of credit to cover extraordinary naval or military charges, and for occasions creating exceptional expenditure arising during the session, are occasionally presented. As the parliamentary session commences but few weeks before the close of each financial year, on the 31st of March, the maintenance of the public service during the opening months of each financial year, which commences on the 1st of April, must be provided for. Grants on account, *i.e.* grants in advance upon the estimated annual expenditure, are therefore a sessional necessity. Supplementary grants are either for sums in addition to grants already demanded for the current financial year for services sanctioned by parliament, or for grants caused by fresh occasions for expenditure arising since the presentation of the annual estimates. An excess grant arises when a department has by advances from the civil contingencies fund, or from "extra receipts," carried expenditure upon a service beyond the amount granted for that service

during the financial year. As a vote of credit is demanded to meet unexpected expenditure for undefined services, an estimate is presented of the total sum required, without the detail given in ordinary estimates. Exceptional grants may also be required to defray the cost of imperial undertakings apart from the current service of the year; such as grants for the purchase of the Suez Canal shares, to maintain the dignity of the crown, or to reward its distinguished servants.

Motions and Resolutions.—Motions are proposed in the committee of supply which become, when agreed to, the resolutions of the committee, that the sums specified in each estimate be, for the object therein defined, granted to her majesty during the financial year for which the demand is made. Such a motion, if not by consent withdrawn, must either be refused by the committee, or be accepted, with or without a reduction of the amount therein stated, no increase of a grant, nor modification of its destination, being permitted. Each resolution of the committee is, upon their report, submitted separately to the consideration of the House.

The resolutions for a money grant of the committee of supply, and of the House, are, however, inoperative, unless the House by another resolution authorises the treasury to draw a sum out of the consolidated fund (see CONSOLIDATED FUND, vol. i. p. 389) sufficient to provide the "ways and means" for the payment of the grant. The committee of ways and means is accordingly appointed, at the commencement of each session, simultaneously with the committee of supply, for the consideration of these resolutions; and the chairman of the committee of ways and means acts as chairman of committees of the whole House. In former times the principal duty of this committee was to initiate by their resolutions the taxation that was required to create a sufficiency of "ways and means" to meet the annual demands of the crown for the public service. Nowadays, as all the sources of taxation are rendered permanent by statute, except the duty on tea, and the income tax, the control of the committee over taxation is restricted to the consideration of the BUDGET statement made yearly by the chancellor of the exchequer, wherein he explains his calculation of public income and expenditure for the current financial year, and obtains the annual continuance of the tea and income taxes, with such modifications as may to the committee seem expedient. The increase or imposition of taxation, not demanded by the crown, is beyond the power of the committee.

As has been previously mentioned, the committee of ways and means is charged with the duty of voting the resolutions which authorise grants out of the consolidated fund "towards making good" the grants for the public service resolved upon by the committee of supply, and by the House. It is upon the report of the closing resolution to this effect, which provides the issue of the balance of ways and means required to cover the supply grants voted for the current financial year, that the appropriation bill is brought in. This bill authorises the issue of that balance from the consolidated fund, and enacts—hence the title of the bill—that each grant of supply voted during the session shall be expended on the service for which it has been voted, and to which it is thereby appropriated.

Appropriation Act.—As the treasury cannot touch the consolidated fund save under the authority of an act, and as the appropriation act cannot be passed until the financial business of each session is completed, a process usually ranging over a period of six or seven months, a more prompt issue must be made at the commencement and during the progress of each financial year of the grants voted for the service of the crown. Bills accordingly are passed from time to time during each session, known as consolidated fund bills, which empower the treasury to issue out of the consolidated fund, for the maintenance of the departments for whose use the grants are voted, such sums as they may require in anticipation of the final sanction conferred by the appropriation act. R. F. D. P.

SUPPLY-CURVES are designed to represent the relation between the price of a commodity and the amount supplied at that price. In the construction which Prof. Marshall has made familiar the quantity is measured on the horizontal axis, the corresponding price on the vertical axis. The converse construction is employed by Cournot.

The simplest species of supply-curve might be constructed thus: "If for the moment we assumed that production depended solely upon the exertions of a certain number of workers, already in existence and trained for their work," we might "set forth theoretically . . . various amounts of exertion and therefore of production" with "the prices which must be paid to induce the available workers to put forth these amounts of exertion" (Marshall, *Principles of Economics*, bk. iv. ch. i. § 2, 3rd ed., of a "supply-schedule" corresponding to the "demand-schedule" of bk. iii. ch. iii., which may be "translated into a curve"). The matter is not so simple when we no longer suppose production to depend upon the exertions of a given set of workers, but to be affected by the "external" and "internal economies" and the pressure on the resources of nature which may attend production on a large scale, and even by the growth of knowledge, population, and capital (*Principles of Economics, passim*; in particular the notes on pp. 450, 503-504 and 518, 3rd ed.). If now

for each amount of production we take a point representing the corresponding "normal supply-price," the *locus* of these points is the normal, or "long-period," supply-curve.

The relation of this secondary supply-curve, as it may be called (cp. *Economic Journal*, vol. iv. p. 436), to the primary one at first described is very delicate. According to Mr. H. Cunynghame, to every point on the secondary there corresponds a primary curve, one of the "successive cost-curves" (*Economic Journal*, vol. ii. p. 41). Attention should be called to Mr. Cunynghame's view that the composition of the demand-curve is exactly parallel to that of the normal supply-curve. The former, he holds, is not "a phenomenon depending on time" (*ibid.* p. 38). Are we to extend this remark to the parallel case of supply-curves; and to regard the whole series of "successive cost-curves" as simultaneous, in the same sense as the parts of an ordinary demand-curve are intended to represent existing co-dispositions?

[Supply-curves of some kind are employed by all the mathematical economists.] F. Y. E.

SURENCHÈRE (Fr.). Higher bid. According to French law, real property offered for sale by auction (*à l'enchère*) in the course of judicial proceedings is not definitely sold to the highest bidder until a period of eight days has elapsed after the date of the auction. During that period any interested party may make an application to the court for a second auction, accompanied by an offer of a price exceeding at least by one-sixth the highest price-bid at the auction. This offer is called *surenchère*, and if the price offered by the applicant (*surenchérisseur*) is not reached the latter must purchase the property at that price or make up the difference. Similar proceedings may take place in the case of a mortgagee selling by private contract, and in the case of a bankrupt's real property being sold by the trustee in bankruptcy, but in these cases the period allowed for the *surenchère* is somewhat longer, and the amount of the excess is not required to be more than one-tenth.

[Code de Procédure, §§ 708-710, 832-833, 965; Code de Comm., 573; Code Civil, 2185.] T. L.

SURETY. He who becomes bound for another. A surety who discharges the liability of the principal is entitled to an assignment of all the securities, if any, held by the creditor (see Guarantee).

[De Colyar on *Guarantees*, London, 1885.] J. E. C. M.

SURPLUS. The effect on price of a short supply of a commodity of such prime necessity as wheat has formed the subject of many speculations, and these have even taken the form of a definite estimate, as in the table given by Davenant, of the extent to which "a defect in the harvest may raise the price of corn." These figures were adapted to an algebraic formula by Jevons (*Theory of Political Economy*, ch. iv.), who found that Davenant's data agreed very closely with the results given by

$$\text{price of corn} = \frac{\cdot 824}{(x - \cdot 12)^2},$$

x being the proportion of the supply to that of a normal or average year. The price given by the formula is the proportion of the actual money price to that of a time when the supply is normal.

If the same formula be applied to indicate the result of crops more abundant than the average, the indications it gives are as follows:—

Percentage excess of supply above average	5	10	20	30	40	50
Percentage reduction of price resulting	10	19	33	44	58	59

The meaning of this is simply that, assuming Jevons's formula to represent the Demand Curves for corn, not merely for prices higher than the average, but for prices below the average, the effects on price of excesses of supply in the degrees named in the first line of figures are given by the corresponding figures of the second line.

It need hardly be stated, however, that there is no special reason for believing that Davenant's data are sufficient to give for our time, even if they should do so for his own, the demand curve for corn. Not only so, but every separate commodity will have its own peculiarities in this respect, so that, were we able to state the numerical connection of enlarged supply with reduced price for the case of corn, the connection could not be held to apply to other important markets.

The extent of the fall of price necessary to carry off an increase of supply will depend on the nature of the commodity and on the extent of its previous use. If the lower price extend its consumption to large classes of the community, a very large increase of supply may take place without greatly disturbing the price after it has fallen to the necessary point to tap the new stratum of consumers. If, on the other hand, no ordinary fall of price can thus bring the commodity within the reach of large numbers of new consumers, and if, further, the actual consumers have already nearly as much of the commodity as they care to use—a state of things by no means inconceivable—the lowering of price necessary to dispose of supplies but moderately in excess of the normal may be quite large. If new channels for disposing of the commodity, where its utility is but little below what it had in the uses to which a normal supply was applied, are not discoverable, the surplus may be only disposable in uses where its utility is far below that attained in ordinary uses, and the fall of price be, consequently, large. The whole supply being assumed disposed of in the same market, the price of the surplus will

also be the price at which the ordinary supply will be sold. Should it be possible to dispose of the surplus at a price other than that at which the ordinary supply finds a market, without, in fact, disturbing the price received for the ordinary supply, the loss which producers would suffer from the fall in the price of their whole output may be diminished or entirely obviated. In this case the surplus supply would, from the point of view of the ordinary market, be as if non-existent.

What is stated above may be more briefly expressed by saying that the effect on price of a surplus of supply is entirely dependent on the elasticity of demand of the particular commodity in question. This elasticity of demand is of course very closely connected with the possibility of substituting the commodity in question for other commodities, or *vice versa*, according as the relative prices show opportunity for advantageous substitution, or not.

If y be the price at which a quantity x of the commodity can find purchasers, the equation $xy^n = c$ is that of a demand curve showing at every point an elasticity of demand equal to n [see Marshall, *Principles*, mathematical note iii.]. Such a demand implies that, as a result of a small fall in the price, the amount demanded increases by an amount varying inversely as the $(n+1)^{th}$ power of the price. To reduce the price by one-half, the supply must be multiplied by 2^n. If $n=1$ we have the case of a *constant outlay demand*, in which the amount spent on the commodity is the same at all prices; every fall in price results in a proportionate increase of the amount bought. The absolute increase of amount bought varies inversely as the square of the price, or, which is the same thing for this case, directly as the square of the amount previously bought.

In the general case, the percentage decrease of price consequent on a given small increase of supply is $\frac{1}{n}$th part of this percentage increase of supply, at all points on the demand curve at which the elasticity is n. If n be greater than unity, the total cost of a supply x increases with x. If n be less than unity, the total price obtainable for an enlarged supply falls short of that for which the smaller supply would sell, and the sellers would gain on the whole, by combining to destroy a part of their supply.

The equation obtained by Jevons differs little, when x is not far from unity, from that of a demand curve in which the elasticity is constant and equal to $\frac{1}{2}$ throughout. The result of a given small percentage surplus of supply is a fall of price of double this percentage.

In general, then, the question of how great the fall of price will be which results from a given surplus of supply, is answered by obtaining the measure of the elasticity of the demand with the ordinary supply. This is only strictly true for cases where the elasticity of demand is constant, but it is sufficiently near to the truth when the surplus is but a small percentage of the total supply. We may expect that demand curves in general will show varying elasticity. In that case, a surplus of supply which is more than a *small* percentage of the whole supply will cause a percentage fall of price greater or less than in the case of constant elasticity, according as the elasticity of demand is decreasing or is increasing as we pass from the point representing ordinary supply to the points representing supply in excess of the ordinary. Corresponding statements may be made for the case of deficient supply.

In what precedes, it is taken for granted that the surplus supply, be it great or small, is not held off the market, but disposed of in the existing conditions of demand. In so far as circumstances permit of retaining a store for anticipated higher prices, the fact of extra supply being available does not produce its full effect on the price of the market. By being in reserve, in case prices should rise sufficiently, it limits the rise, but not being thrown on the market at all at prices below a definite figure, cannot depress prices beyond that point, at any rate if we exclude the influence of trade-connections, etc., influences tending to modify the effects of unfettered competition.

The word "surplus" has, in what precedes, been employed to designate all the excess of supply above the ordinary—a distinctly vague conception. The ideas on which the discussion has been based are those of a steady supply and a steady demand in a market with an equally steady price for the commodity. Into such a steady market is introduced the modifying influence of a growth of supply. The addition to the supply is what is here called "surplus." It cannot be said to be in excess of demand except on the hypothesis that the price do not fall. It is not "surplus" to the consumers who, at the reduced price, are able to obtain goods beyond their reach at previous prices. In one sense of the word, goods cannot be in excess, cannot be truly a surplus, so long as there remain any purposes to which these goods would be applied if they were free, but to which, having a cost price, they are not actually applied. In the more usual sense, however, any supply the disposal of which requires a reduction of price may be denominated a surplus supply. It may be observed that an enlarged supply would not, in this sense of the word, imply any "surplus," if it were accompanied by such a development of demand that the whole could be disposed of without any reduction of price below the customary level. In so using the word, agreement with the ordinary language of business is preserved (cp. arts. ELASTICITY OF DEMAND).

A. W. F.

SURPLUS, LAW OF. See SURPLUS.

SURPLUS VALUE. See MARX, H. K.; VALUE.

SURVIVAL OF THE FITTEST. Natural selection, which tends to the preservation of creatures more adapted to the medium they have to live in, and to the disappearance of those less so, is, beyond doubt, a *vera causa* in the organic world. It leads, in general, to the physical improvement of breeds, and, if the general Darwinian hypothesis be correct, may be a real factor in the production of new species, though Darwin does not claim for it that it affords a complete explanation of their origin (see DARWINISM). Its consequences can be modified by human intervention, which may prefer, and therefore protect, weaker individuals or races among the lower animals; for it is obvious that qualities, such as gentleness and capacity for affection, which might render a creature less formidable, and therefore less successful, in a state of nature, may make it more useful and acceptable when domesticated or employed as an auxiliary of man.

In the case of man himself, as in that of other animals, there is a natural tendency to the survival of the physically soundest and strongest; and some theorists have not shrunk from carrying the Darwinist idea so far as to assert that it is desirable in the interest of society that the existence of the physically weak should not be prolonged by the care of their fellows, but that they should be allowed to disappear as "unfit." But, as has been well said, a great proportion of those to whom the world owes most would never have been considered in a physical point of view the strongest, and were not seldom among the weakest, whilst, on the other hand, many of the physically strongest could well have been spared. "Fitness" is relative to all the conditions; and physical advantages may be extremely important in some times and places, and of comparatively little account in others. In the more advanced stages of human development they are greatly outweighed by intellectual and moral superiority. Even in warfare, whilst the tall and muscular man formerly was the leader, it is now often a person of comparatively feeble frame, to whom nature has given a resolute spirit and a genius for command. Another suggestion founded on Darwinian principles, and more plausible in character than that above referred to, has been made, namely, that those who are likely to transmit some form of disease or infirmity to their descendants should be prevented from marrying. The result at which this proposal aims is certainly desirable, if it could be attained by moral influence; and such influence might and ought to be used for the purpose; but to attempt to effect the object by coercion would be a proceeding at once tyrannical and ineffectual. Neither this sort of compulsion, nor the old expedient of infanticide, is at our disposal for the improvement of the race, being rendered impracticable by feelings which the progress of society has itself developed. We must take the human material as supplied to us, and modify it as far as possible, in the public interest, by judicious treatment—by physical education and hygiene, and, in general, by better conditions of life.

When we consider the social, as distinguished from the physical, "struggle for life" (a Darwinian phrase which must not be taken as expressing, in this application, more than a half-truth), natural selection is, here too, a real agency. But it is a serious error to suppose that its operation is always beneficent. For, while the respectable elements in our natures sometimes lead to success, the lower and even the vicious ones do so also. Viewing contemporary life, if we use CARLYLE's threefold scale of the vulpine, the beaver, or *un*moral industrial, and the genuinely human qualities, we must admit that the first often have a large share in winning success and predominance. A steady and vigilant selfishness, a dogged refusal to acknowledge the claims of others wherever they can be disputed, and a constant endeavour after personal gain, will sometimes render a man "fit" for the medium he lives in, and assist him in improving his position. One who rudely elbows his way through a crowd will often make progress where a more modest person, with greater regard for others, will be retarded or altogether brought to a stop. As Huxley has said, "the creature that survives a free-fight only demonstrates his superior fitness for coping with free-fighters, not any other kind of superiority." Some who have not been able to sustain themselves in the stress of competition, but have succumbed to the pressure, though less "fit" for the struggle, may have been superior to the successful in all the higher elements of human character. Similar remarks will apply to cases in which success is won by dishonest arts, by mean compliances, by flattery of the wealthy or the powerful, by unworthy self-advertisement. Those who do not stoop to such expedients may be distanced in the race of life, but society is a loser by their failure. In the social sphere, as in the physical, judicious human intervention may do much to correct the evils which arise from the uncontrolled action of natural forces. Persons who, by intellectual gifts of the nobler order and by moral superiority, are really fitted to be useful, though likely to be crushed in the warfare of competition, may be rescued and sustained. And, by "artificial selection," those who for the welfare of society ought to fill positions of influence may be elevated to those positions, even when incapable of attaining success by energetic or politic self-seeking.

[Bagehot, *Physics and Politics*.—Bonar, *Philos.*

and Pol. Ec.—Ritchie, *Darwinism and Politics.*] J. K. I.

SUSPENSE ACCOUNT. In bookkeeping an account sometimes raised for temporarily holding an item, whose final disposition is not yet settled. R. W. B.

SUSPENSION OF SPECIE PAYMENTS. One of the most important instances of a general suspension of cash payments was that which commenced in this country in 1797. The enormous expenditure abroad on our army and navy during the first years of the war against Napoleon, as well as the loans and subsidies granted to some continental states, caused a steady export of bullion (see DRAIN OF BULLION). An Order in Council was addressed to the Bank of England on 26th February 1797, requiring it to cease giving out cash in payment until the sense of parliament could be ascertained. Soon after the meeting of parliament an act was passed (3rd May 1797), known as the Bank Restriction Act, requiring the bank not to pay cash except for sums under 20s. This act would have expired 24th June in the same year, but on 22nd June it was continued until the following session, and, in November 1797, another act was passed extending the restriction until six months after the termination of the war. In consequence the note issues, both of the Bank of England and of the country bankers, were largely increased, and being inconvertible, caused gold to go to a premium. In 1800 the price of standard gold rose to £4 : 5s. per ounce, and continued to fluctuate at more or less premium until 1819. In 1811 it was quoted at £4 : 17 : 6, and in 1814, as high as £5 : 8s. per ounce. Conversely stated, the value of the £5 note was then at its lowest point, £3 : 10 : 10, being nearly 30 per cent discount.

Peace was finally concluded in November 1815, and the Restriction Act should have expired six months later, but it was continued till July 1816, 1818, and 1819 successively. In 1817 the bank gave notice that it desired to pay certain of its notes in gold, but it was prevented from doing so by parliament. In 1819 Resumption was provided for by Peel's Act (59 Geo. III. c. 49), which required the bank to resume specie payments by stages, redeeming its notes in gold bullion at the following rates :—

From 1st Feb. 1820 to 1st Oct. 1820 at £4 : 1s. per oz. std.

From 1st Oct. 1820 to 1st May 1821 at £3 : 19 : 6 per oz.

From 1st May 1821 to 1st May 1823 at £3 : 17 : 10½ and thereafter in gold coin.

In 1821 the bank obtained an act permitting it to pay all its notes under £5, which was done by payment in sovereigns, then first coined. In preparing for the resumption of specie payments the bank found no difficulty whatever in accumulating an ample stock of coin and bullion, and the whole history of the events of this period fully justifies the conclusion that in a solvent country with a sound currency the quantity of money in use will be regulated by the requirements of trade and of prices. The following table gives a view of the currency, in periods of five years each, showing the *average* circulation of the bank and of the country bankers, and the *total* of gold and silver coined from 1792 to 1831 :—

Period.	Average Note Circulation.		Total Coinage.
	Bank of England.	County Banks.	
	£	£	£
1792-1796	11,637,470	No return before 1814.	7,436,293
1797-1801	14,023,530		6,657,303
1802-1806	16,733,330		1,851,625
1807-1811	19,811,410		1,299,859
1812-1816	25,153,520	18,935,400	2,324,973
1817-1821	25,287,230	14,186,950	23,172,781
1822-1826	21,469,520	10,961,800	22,283,903
1827-1831	20,691,710	8,798,500	9,134,894

A general suspension of specie payments also took place in the United States at the time of the civil war. At the beginning of 1861 the paper currency consisted entirely of notes of the various banks amounting to about 40 millions sterling. The acts of 17th July and 25th August 1861 authorised the issue of treasury notes, redeemable in coin on demand, but they were received with dislike. In December 1861 specie payments were suspended, and the issue of government legal-tender notes was authorised by act of 25th February 1862. Their amount rapidly increased, till, in 1865 the total of demand notes in circulation was about 150 millions sterling. Their value in gold as rapidly decreased, and in 1864 it fell to 35·1 cents per dollar, equal to a price for gold of 285 per cent. In 1866 the Treasury began to redeem them, at the rate of 4 million dollars per month, by cancelling them as received for taxes, but redemption was suspended by congress in 1868. The act of 14th January 1875 provided for the resumption of specie payments, directing the cancelling of legal-tender notes to be continued, and requiring the secretary of the treasury to prepare and provide for their redemption in coin upon the 1st January 1879. For this purpose, besides using the surplus revenues, he was authorised to create and sell for coin interest-bearing bonds of the United States. Under these powers bonds for $90,000,000 (say £18,000,000) were sold, realising $95,500,000 (say £19,000,000). This amount was not applied in reducing the amount of legal-tender notes, because the act of 31st May 1878 prohibited any further reduction, and required the treasurer to pay them out again after redemption. It has, however, since been always regarded that $100,000,000 (say

20 millions sterling) of the balance in the treasury should be reserved for note redemption. But the general resumption of specie payments was carried into effect before the time contemplated by the act, and on 17th December 1878 gold touched par. The following table gives the highest price of gold in each year from 1861 to 1878:—

1861—104	1867—145⅝	1873—119⅛
1862—134	1868—150	1874—114⅝
1863—152¼	1869—162½	1875—117⅝
1864—285	1870—123½	1876—115
1865—233¾	1871—115⅝	1877—107¼
1866—167¾	1872—115⅝	1878—107

[For Great Britain, see *Report of Bullion Committee.*—M'Leod's *Theory and Practice of Banking.*—Tooke's *History of Prices.* For U.S.A., Bolle's *Financial History of United States.*—Knox's *United States Notes.*—*Journal of Institute of Bankers*, vol. vi. pp. 262-270.] B. W. B.

SÜSSMILCH, JOHANN PETER (1708-1767), was the author of the earliest works which can be described as "statistical" in the modern sense of the term. Süssmilch was a Prussian army-chaplain who in 1742 published a remarkable book entitled: *Die göttliche Ordnung in den Veränderungen des menschlichen Geschlechts, das ist gründlicher Beweis der Göttlichen Vorsehung und Vorsorge für das menschliche Geschlecht aus der Vergleichung der Geborenen und Gestorbenen, der Verheiratheten und Geborenen wie auch insonderheit aus dem beständigen Verhältniss der geborenen Knaben und Mädchen u. s. f.* This very long title was materially shortened in the next edition, which was not issued until 1761. The title then ran thus:—*Die Göttliche Ordnung in den Veränderungen des menschlichen Geschlechts aus der Geburt, dem Tode, und der Fortpflanzung desselben erwiesen.* The 4th edition (3 vols.) was printed in Halle and published in 1798 at the *Realschule*, Berlin, carefully edited and revised. Süssmilch's book deservedly won him high consideration among men of science, and also, which in those days did not necessarily follow, in the official world, for he became an *Oberconsistorialrath* and a member of the royal Prussian academy of sciences. Süssmilch was the first systematic student of "political arithmetic" (see ARITHMETIC, POLITICAL), as Sir William PETTY termed investigations into what are now known as "vital statistics," who was not satisfied with merely recording facts, but deduced general laws from them. This is no disparagement to his predecessors, for they had even less materials to work upon than Süssmilch. Such was the success of *Die Göttliche Ordnung* that it was not long before there arose a school of "mathematical" statisticians who perversely refused to admit that any elucidation of figures was needed, maintaining that they told all that was required. Süssmilch himself was really in advance of his time; he was a shrewd man as well as a very painstaking and learned one, and made excellent use of the imperfect materials at his disposal.

[Haushofer, *Lehr- und Handbuch der Statistik*, Vienna.—Maurice Block, *Traité Théorique et Pratique de Statistique*, Paris.—G. Mayr, *Die Gesetzmässigkeit im Gesellschaftsleben*, Munich.—Bonar, *Malthus and his Work.*] W. H.

S., W. See W. S.

SWAN, COLONEL JAMES (1754-1835), American merchant, politician, soldier, and author, helped to throw the tea-chests into Boston harbour, and was also aide-de-camp to General Warren at Bunker's Hill in 1775. In 1787 he left for France, a ruined man, but having speedily accumulated a fortune, returned in 1795 to his former associations in the States. His next thirty years were occupied in litigation, and the greater part in a Paris prison. In March 1830 his prosecutor died, and Swan was liberated. But he remained in Paris till his death.

He published *A Dissuasion to Great Britain and the Colonies from the Slave Trade to Africa* (Boston, U.S.A., 1773, 8vo). In the opening dedication to the governor of Massachusetts, Swan describes himself as a "Scotsman." He shows slavery to be derogatory to the spirit of Christianity, encouraging internal war among the African tribes, that the traders may buy the prisoners for slaves. He details the horrors of the slave-ships, points out the preferable economic advantages of amicable commercial relations with the negroes, and obtaining (pp. 31, 32), in return for our trifling wares, their ivory, gum, spices, and gold. If this were done he assures us that where British merchants "now export twenty shillings worth of commodities thither, they would then export an hundred pounds" (p. 32).

In *An Address to the President, Senate, and House of Representatives of the United States, on the means of creating a National Paper by Loan Offices which shall replace that of the discredited Banks, and supersede the use of Gold and Silver* (Boston, Mass., 1819, 8vo), Swan proposed that the United States should, on the credit of its 800,000,000 acres of unsold land of the value of 1,600,000,000 dollars, issue 150,000,000 dollars "in current bills, bearing interest at 3 per cent per annum." "That amount," he continues (p. 9), "is not a tenth part of the capital, and that credit would be so much the more solid since not a dollar of these bills could be put into circulation but from loans made to individuals with three solvable signatures; or to merchants on the deposit of goods for sale; or to proprietors on mortgage of real estates with bonds of the borrowers; all these loans to be had on paying 6 per cent per annum, and as the current bills borrowed of Government bear 3 per cent interest, these loans would be really offered at 3 per cent interest instead of 6, the legal usage for money."

Swan also wrote and published *National Arithmetic*, by J. S. (1786, 8vo).—*Causes qui se sont opposées aux progrès du commerce entre la France, et les États-Unis de l'Amérique, avec les moyens de l'accélérer . . . en six lettres adressées à M. le Marquis de La Fayette. Traduit sur le manuscrit anglais du Col. S.*, Paris, 1790, 12mo.—*Courtes*

observations sur l'état actuel des manufactures du commerce et des finances de l'Europe, et sur celui de l'agriculture en France, et les moyens de l'améliorer, Paris, 1828, 8vo. A. L.

SWANIMOTE. See FORESTS, MEDIÆVAL.

SWEATING. A term that has somewhat recently become naturalised in economic technology, but of which the precise signification is still uncertain. It was originally a slang expression, denoting a system of SUB-CONTRACT (*q.v.*) in certain industries, of which the clothing trade in all its branches is the most conspicuous, and was so applied by Charles KINGSLEY in his novel of *Alton Locke*, published 1849, and his tract *Cheap Clothes and Nasty* by Parson Lot, which made its appearance a little earlier. In the latter a definition of it is afforded in the following terms:—"Part of the work, if not the whole, is let out to contractors or middlemen,—sweaters, as their victims significantly call them,—who, in their turn, let it out again, sometimes to the workmen, sometimes to fresh middlemen; so that out of the price paid for labour on each article, not only the workmen, but the sweater, and perhaps the sweater's sweater, and a third, and a fourth, and a fifth, have to draw their profit." This definition agrees with one furnished nearly half a century later, in an elaborate report on the sweating system of Chicago, forming Part II. of the report of the bureau of labour statistics of Illinois (1892), where the whole matter is dealt with at length, and most intelligently. In the opinion of the writer of this report, the "sweating system is one of respectable antiquity, and is a surviving remnant of the industrial system which preceded the factory system, when industry was chiefly conducted on the piece-price plan in small shops or the homes of the workers. . . . In practice, sweating consists, he says, of the farming out, by competing manufacturers to competing contractors of the material for garments, which in turn is distributed among competing men and women to be made up. The middleman, or contractor, is the sweater (though he may also be himself subjected to pressure from above), and his employés are the sweated or oppressed. He contracts to make up certain garments at a given price per piece, and then hires other people to do the work at a less price. His profit, it is pointed out, "lies in the difference between the two prices" (pp. 357, 358). On the other hand, these definitions do not agree with the conclusions arrived at by a special committee of the House of Lords, appointed in 1888 to investigate the same subject. After an exhaustive enquiry, this committee reported that sub-contracting was not synonymous, or even conterminous, with sweating. The middleman is "the consequence, not the cause, of the evil"; and is "absent in many cases in which the evils complained of abound" (vol. v. par. 181). The sweating system may exist under any method of employment, when "the conditions of the labour market afford abundant materials to supply an unscrupulous employer with workers helplessly dependent on him" (185). "In some cases the man known as a sweater is merely an agent, knowing nothing of the business. Sometimes he acts the part of a foreman, and directs the work of every branch, understanding the whole business thoroughly. Sometimes he works as hard as any of his employés" (par. vii.). Their definition of sweating is, "taking advantage of the necessities of the poorer and more helpless classes of workers" (171); or, "grinding the faces of the poor,"—as still more compendiously expressed by a prominent witness, Mr. Arnold White (par. 172).

These quotations reveal a fundamental difference of opinion on the part of two competent authorities, speaking from either hemisphere, and it is to be remarked in addition that no English political economist, or historian of eminence, has ventured yet to make any specific use of this term. In Mr. Howell's *Conflicts of Capital and Labour*, it occurs but once (p. 114), the passage being little more than the incorporation of another from Mr. Brentano's *History and Development of Gilds* (p. 129) referring to the repeal of 5 Eliz. c. 4 (in 1814), the "immediate consequence of which," this writer says, was "such a growth of the system of *sweaters* and half-pay apprentices, that the journeymen were driven to famine, and the female workers to prostitution." It is in fact a very unfortunate term in more ways than one and were better perhaps discarded altogether where scientific accuracy is aimed at.

Such as it is, however, and regarding its use in the limited sense of having a direct relation with sub-contracting, in which it seems to have originated, there are, according to the American authority referred to, two principal modes in which the sweater operates: "he will furnish shop-room and machines to some, and allow others, usually the finishers, to take the work to their living and lodging-rooms in tenements." Some remarks on the former of these modes of industry will be found under the heading TOOL RENT; the latter is one that has from time to time aroused public attention and sympathy, both at home and abroad, ever since the inquiry of the Second Children's Employment Commission (1862-66), if not earlier; and which, under the name of Home Work, was again (1894) a prominent subject of controversy in view of the grave evils still found to be associated with it. It is obviously an exceedingly difficult matter to deal with. On the one hand, it would certainly seem a highly arbitrary and oppressive act to forbid, or even attempt to regulate very strictly this work; on the other, it is truthfully argued

that such methods of employment inevitably bring down the wages of better-organised labour, tend to lower the standard of living, and are often pursued under terribly insanitary conditions. It is known that such considerations affecting labour were a principal concern of the mediæval guilds, and in certain modern trade unions a campaign against all home work has been inaugurated, while in all it is discouraged in a greater or less degree. The question remaining for decision is, whether this campaign should be made general; and, in particular, should be enforced by the mandate of the state. In some countries, as Switzerland and a few of our own colonies, an experiment of this kind has been already tried, and the English factory act of 1891 contained a provision of the nature of a preliminary step in the same direction. The 27th section of the 54 & 55 Vict. c. 75 imposed the obligation on "the occupier of every factory and workshop . . . and every contractor employed by any such occupier in the business of the factory or workshop . . . if so required by the secretary of state," to "keep in the prescribed form and with the prescribed particulars lists showing the names of all persons directly employed by him . . . outside the factory or workshop, and the places where they are employed . . . and every such list shall be open to inspection by any inspector under the principal act, or by any officer of a sanitary authority." A still more recent one (1895), 58 & 59 Vict. c. 42, requires further that such lists be sent to the inspector of factories for the district twice a year, and another provision, sec. 16, has for its object to prohibit work being taken home to be operated on "except during the period of employment." The secretary of state (home secretary) has, in virtue of the powers herein conferred upon him, scheduled certain manufacturers accordingly. They are: the manufacture of articles of wearing apparel; the manufacture of electro-plate; cabinet and furniture making, and upholstering; the manufacture of files (see SUB-CONTRACT).

[Charles Kingsley, *Alton Locke;* with which is bound up *Cheap Clothes and Nasty*, by Parson Lot (new ed. 1887).—*Seventh Biennial Report of the Bureau of Labour Statistics of Illinois*, Springfield, 1893. — George Howell, *Conflicts of Capital and Labour* (1878). — Lujo Brentano, *History and Developments of Gilds and the Origin of Trade Unions* (1870).—Charles Booth, *Life and Labour of the People* (1888).—R. W. Cooke-Taylor, *Modern Factory System* (1891); *Report to the Board of Trade by its Official Labour Correspondent* (1888); *Fifth Report from the Select Committee of the House of Lords on the Sweating System* (1890).—*Factory and Workshop Act* (1891).—D. F. Schloss, *Methods of Industrial Remuneration*, 1892.] R. W. C. T.

SWIFT, JONATHAN (1667-1745), dean of St. Patrick's, Dublin, the austere Rabelais, the party pamphleteer from whom Rousseau learnt to detest politics and society, the high churchman from whom Voltaire and Lessing learnt their religion, the author of *Gulliver's Travels*, is a writer to whose economic views critics are often unjust. *The Humble Petition of the Colliers, Cooks, Cook-maids*, etc., against the use of focussed rays by a supposed company instead of fires, represents that this "will utterly ruin . . . your petitioners . . . and trades on them depending, there being nothing left to them after the said invention but warming of cellars and dressing of suppers in the wintertime." And "whereas the said" company "talk of making use of the moon by night as of the sun by day, they will utterly ruin the numerous body of tallow chandlers," and so the tallow tax will fail. The fame of BASTIAT is chiefly based on his expansion of this parable in the seventh of his *Sophismes Économiques* (1846), of which his admirers still say "nothing is more brilliant, nothing more French." Swift's *Maxims controuled in Ireland*, suggested perhaps by Sir W. TEMPLE (*Works*, ed. 1814, vol. i. p. 177), exposes, after the manner of Bastiat, popular economic fallacies which deceived Temple, LOCKE, and CHILD, whom he had studied; *e.g.* that a large population, high prices for land, dear provisions, and big towns (cp. BARBON) *must* imply wealth, and that low interest *must* be due to much money. For "must," he says, you should write "may"; thus, in trading countries like Holland and England, low interest and high capital values for land were effects of the causes alleged, but in Ireland of the absence of trade, and therefore of a demand for loans. He perceived "that in the arithmetic of the customs two and two, instead of making four, make sometimes only one" (A. Smith, *W. of N.*, bk. v. ch. ii.). Otherwise Swift belongs to his age. Thus the king of Brobdingnag's belief that "whoever could make two ears of corn or two blades of grass to grow . . . where only one grew before would deserve better of mankind . . . than the whole race of politicians," and the echo of this belief at the end of the last of the DRAPIER'S LETTERS resembles Molesworth's ideas (1723), and afterwards became a favourite motto with A. YOUNG. He thinks with Locke that taxes fall mainly upon land, which, like HARRINGTON, he overrates (*Works*, ed. 1824, vol. iii. p. 518); and his anger against ploughlands being turned into sheep-runs makes him akin to LATIMER, Boulter (*Letters*, 24th February 1727), and, as he himself said, to Ajax. He pillories the trading spirit in his abuse of the Dutch; and wishes a weavers' corporation to regulate prices and qualities, and to punish offenders by "warnings" (*Works*, vol. vii. pp. 49, 50, 137). He denounces "the restriction" and urges Irishmen to raise by way of reply what Berkeley called "a wall of brass a thousand cubits high" round Ireland; and thinks that this could be

done by a resolution to consume home-made goods instead of "unwholesome drugs and unnecessary finery" imported from India and elsewhere (*Proposal for the universal use of Irish Manufacture*). His sumptuary mercantilism is the same as that of Sir W. TEMPLE, POLLEXFEN and BERKELEY. For the rest he advocated national education and beggars' badges, and adopted Temple's fallacy that high rents caused high prices, PRIOR'S facts and fallacies on absentees, and Molesworth's views on rack-rents; he deplored with Temple the destruction of timber, and opposed Boulter's lowering of the gold coin, and Berkeley's proposal for a bank; and like Prior, Berkeley, James King, Simon, and others, he advocated an Irish mint in his DRAPIER'S LETTERS (1723-24). In these Swift's economic objection to Wood's copper—if stripped of its figures, which Swift meant to be figures of speech[1]—was that the coin being hammered and not milled was easily forged, was base, excessive, and not convertible by the patentee; further, the patent did not make it legal tender, so that when this was known it would at once lose its mint value unless it should, by an abuse of the royal prerogative, be made full legal tender, in which case it would drive out gold and then depreciate. Swift did not, nor could any writer at that time, analyse the latter process, and he omitted a third possibility, that it might be made limited legal tender.[2] If this omission was uncandid what shall we say of his critics Leslie Stephen (*Swift*, pp. 153 *et seq.*) and Moriarty (*Swift*, 1893, p. 211), who assume that the coin was legal tender up to 5½d.? Further, token coins, if redundant and difficult to convert, are open to these objections, so that the omission weakens but does not vitiate the argument. Lastly, facts and dates indicate that there was a likelihood that these coins would be made legal tender either to an unlimited or to a dangerously high extent. Wood boasted, 9th February 1722, that his coins were or would be made legal tender (Coxe, *Walpole*, ii. 371); and from Lady-day 1722, when his coining rights began, to 16th September 1723, the terms were unknown even in Dublin Castle; had the whole amount, £100,800, been floated in the dark, the hands of ministers must have been forced and most of Swift's fears realised. Again, the crown rent was £100, and Walpole's report valued it at £800; under the Armstrong-Knox patent of 1680 the copper need not be quite so good, and was only limited legal tender, but the rent was only £16. Further, there was virtually no silver in Ireland (Sir J. Browne, *Scheme*, 1729; British Museum, Add. MSS. 34358, pp. 74, 79); and every one was either bimetallic or silver-monometallic; and only thirty-three years before James II. had substituted full legal tender brass for silver. Further, the customs officers were practically ordered (Coxe, *l.c.* p. 393) to receive these coins without limit, and in the efforts referred to in Coxe (*l.c.* pp. 346-438) and Monck Mason (*l.c.* app. note *c*) to dissuade ministers from making them legal tender, no limit is mentioned. Lastly, it was clear ever since the first letter that the patent would always be onerous; yet when it was revoked, 14th August 1725, the treasury paid Wood instead of Wood paying the treasury; a compact with Wood to make the coins legal tender would explain this. Ruding cites against these arguments Walpole's *Report of the Privy Council*, 24th July 1724, which disclaimed any intention to make the coins legal tender; and argues that because danger was averted it was not real. Yes, but Swift's first *Letter* was published November (?) 1723,[3] and doubtless caused the report, just as the second letter doubtless caused its publication, and the third letter criticised it; in the next two letters the storm centre shifts from economics to politics; the next is retrospective, the last prospective. Or it will be said "how absurd to think that Walpole would do what James II. did and in the same way!" Of course the patent was a mere blunder; if the coin were private it ought to have been, like promissory notes, convertible into legal tender coin by the issuer; if public, it ought to have been legal tender; and it was neither. But blunders often have the same effect as crimes. To conclude, Swift described, with popular but not misleading rhetoric, a grave economic peril which he more than any one averted.

[Public record office, patent rolls, 8 Geo. I. pt. v. No. 5, bears out Monck Mason's abstract of Wood's patent, *History of St. Patrick's* (1820), p. 326 n., so that the dates in Leslie Stephen, Froude, etc., are wrong. The errors mentioned in notes 1 and 3 occur in Faulkner's (1735), Hawkesworth's (1755), the Edinburgh (1761), Sheridan-Nichols' (1801), W. Scott's (1814, 1824), J. B. Daly's (1887), H. Craik's (1892),

[1] Swift, in order to make this plain, wrote that Wood's patent was for "fourscore and ten thousand pounds" (cp. *Works*, vol. x. p. 78; vol. xi. p. 35) in his first letter, £140,000 in his second. In his pirated third edition (1735) Faulkner changed these allegorical figures to £108,000, a figure which occurs correctly in the fourth letter in another context. Swift's figures as to the commercial value of Wood's coin presuppose fraud on the part of Wood; this charge was corroborated with regard to the first year's coins, disproved with regard to the second year's coins (Monck Mason, p. 340). But the figures vary from ¼ to $\frac{1}{17}$, and are not serious.

[2] His critics miscite his reply to Wood's proposal that Wood and his agents should force 5½d. at a time on some class of people; which is that this would not make it legal tender generally, so that the first recipients would lose (vi. 379). When he discusses a possible proposal to force it on people generally by proclamation (p. 383) he mentions no limit.

[3] Faulkner's reprint (1725) misprints "four" for "three" in the third paragraph of the first letter, and so makes the date autumn 1724. A similar sentence occurs in the seventh letter (vol. vii. p. 52) where "four is correct; the seventh is therefore a year later than the first letter, and its date is the end of October 1724. Lord Midleton probably refers to the first letter as written but not yet published, 1st November 1723 (Coxe, vol. ii. p. 372).

and we believe every edition since 1735. The economic case against Wood is put into economic language by D. B. in *Some reasons showing the necessity . . . for continuing to refuse Mr. Wood's coinage.* Faulkner's reprints (1725) says D. B. was Swift, but he was clearly David Bindon, author of *Essay on the Gold and Silver Coin current in Ireland* (1729). D. B.'s figures are practically the same as those approved by Lecky, *History of England in the 18th Century*, vol. ii. p. 424 n. Massie (British Museum Lansdowne MSS. 1049) also ascribes to Swift a *Letter to a Country Gentleman about Coin in Ireland* (1736), unknown to Scott, Craik, etc. The *Humble Petition* is sometimes ascribed to J. Arbuthnot. There are references to Swift in Macpherson, *Hist. of Commerce*, vol. iii. 392 n.; Hume, *Works*, ed. Green and Grose, vol. iii. pp. 332, 344.] J. D. R.

SYCEE. The silver ingots commonly used in China as currency are known under the general title of sycee. The word conveys the idea of pure silver, having been derived from *Se-sze*, meaning silk-fine, that is to say pure enough to be drawn into a fine wire or thread. The millesimal fineness of this silver varies from about 960 to 990, being thus as nearly fine as the rough method of assay employed by Chinese merchants can verify.

The usual shape of sycee ingots bears some resemblance to that of a Chinese shoe, and such ingots have come to be generally known as "shoes" (see CASH and TAEL). F. E. A.

SYNDICATE. This word is used to describe a body of persons who combine for the purpose of some financial transaction. The most common syndicates are the so-called underwriting syndicates, who, in return for a commission, undertake to take over so much of any public issue of stock exchange securities as shall not be taken over by the public. As a general rule the members of a syndicate do not enter into any regular partnership arrangements, but it is sometimes found advantageous to register a syndicate as a limited company (see RING; TRUSTS). E. S.

SYNDICATS PROFESSIONELS (Fr.). Trades unions. The present legislation on such associations was established by a law of the 21st March 1884. Unions of workmen had existed in France from the earliest times, and even survived the revolutionary law of June 1791, abolishing all trade gilds and corporations; but their powers were restricted by arts. 291-294 of the penal code, which prohibit meetings of more than twenty persons without authorisation for the discussion of religious, literary, political, or other subjects, and incitements to crime or misdemeanour by speeches or exhortations, or the reading, display, publication, or distribution of any writings whatever; and by art. 416 of the same code, which punished by imprisonment for six days to three months, and fines of from 16 francs to 300 francs, or either of those penalties, any workman, master, or contractor for work, who, by means of fines, prohibitions, proscription, or exclusion, after a concerted plan, should have restricted the free exercise of labour or an industry. The law of 1884 enacts that arts. 291 to 294 of the penal code shall not be applicable to workmen's syndicates, and abrogates art. 416 of that code. The subsequent sections declare that associations, even of more than twenty persons, may be freely formed without authorisation; their object must be exclusively the study or protection of economic, industrial, commercial, or agricultural interests. The unrestricted right of combination has not tended to improve the relations between masters and workmen. Strikes and coalitions to impose on masters the exclusion of non-syndicated workmen, which were formerly punishable under art. 416, are now more frequent than ever. The only corrective to the abuse is that judges sometimes award damages against the syndicate to the aggrieved workman. T. L.

SYNTHESIS AND SYNTHETIC METHOD. —The synthetic method is often identified with deduction in contrast with induction, which is called the ANALYTICAL METHOD (*q.v.*). This identification may be explained as follows:— Deduction is primarily defined as a process of inference from more general to less general propositions. Now the most general propositions of such a science as economics are extremely abstract; and the process of deducing specific conclusions leads to the formulation of increasingly concrete propositions. The concrete are obtained from the abstract by a combination or *synthesis* of elementary principles; and the conclusions are obtained by investigating the effect of a number of different causes acting together. To apply the synthetic method we must know (1) the effect of each of a number of different causes; and (2) a principle for calculating the effect of a combination of such causes when the effects of the separate causes are known. The original premisses of the synthetic method are chiefly derived by induction from common experience of human motives and natural forces. For example, we can inductively obtain the general nature of the conditions of demand for any commodity, and also of the conditions of SUPPLY. By a mental synthesis of these two sets of conditions, we can calculate the price and amount at which transactions in that commodity will take place. Again, we may learn inductively from common experience the nature of the factors required to co-operate in the production of a commodity and of the conditions connecting the price and amount at which these factors are supplied. By a mental synthesis of these conditions, we calculate the conditions for the supply of the finished commodity. The method leads to more concrete results when the separate effects of CUSTOM, HABIT, ignorance, inertia, etc., are taken

into account, and the joint result of these several influences is calculated. Special importance attaches to the calculation of the effects of MONOPOLY and COMBINATION.

But it is doubtful whether the terms synthetic and analytic should be used to indicate the contrast between the DEDUCTIVE and INDUCTIVE METHODS. For both in deduction and in induction both analysis and synthesis are employed. In fact it will be found that Professor Marshall repeatedly uses the phrase analytical method to represent what is here called the synthetic method; see in particular *Principles of Economics*, bk. i. ch. vi. Thus he writes (p. 92, note 1) "those who rate highly the importance of analytical methods are glad to acknowledge the great services which the historical method, in the hands of really able men, renders to economics generally, and even to economic analysis." Here, and throughout the chapter, the terms analysis and analytic method are pointedly referred to what is otherwise known as the *a priori*, or deductive treatment of economic problems. And it is undoubtedly true that analysis is much more prominent than synthesis in the calculations carried out by deductive economics. For the first step is to extricate from amongst the complicated forces known to operate in society, those which bear on the special problem. When any piece of deductive reasoning is presented for criticism, the questions to be asked are "*is the analysis correct?* Have all the forces which would operate in the case presented for discussion been taken into account? Or has the reasoner omitted to notice that condition A would have been followed by condition B, or counteracted by condition C, and so on." Such considerations naturally present themselves as involving the mental process of analysis; and the mental synthesis which accompanies or follows the analysis strikes one as relatively unimportant. Turning to the inductive method, which rests on a historical and comparative examination of events presented in actual experience, it might be said that here the process of collecting and connecting facts is a sort of synthesis. But this view could not properly be maintained. For the term *synthesis* should be used to denote the mental combination of different characteristics by which we apprehend a complex phenomenon. It should *not* be used to denote the bringing together of various complex phenomena with the purpose of comparing them and extracting their essential points of agreement and difference. Of course, however, no analysis is complete unless supplemented by a process of synthesis in which we reconstruct in thought the complex whole first apprehended as an unanalysed unity. Since an analysis of complexes and a synthesis of elementary conditions are together involved both in deduction and induction, it becomes important to point out how the analysis or synthesis differs in the two methods. The obvious difference is that in the A PRIORI method we construct *imaginary* cases, illustrative of the forces which we know from general considerations to be in common operation; whereas in the A POSTERIORI method we consult the records of events which provide *actual* cases. Now these illustrative cases can be much more adequately analysed than any cases provided by history, because the latter are indefinitely complicated and contain an unknown number of unknown factors. A complete analysis of real instances is impossible. Thus, induction rests on a necessarily superficial analysis of concrete cases aided, if possible, by a wide comparative survey needed to compensate for the necessary superficiality of the analysis. Deduction offers a complete analysis of the illustrative or hypothetical cases with which it deals; but of course its results cannot be straightway applied in explanation of facts in all their circumstantial detail (see ANALYTICAL METHOD; DEDUCTIVE METHOD; HYPOTHESIS; INDUCTIVE METHOD). W. E. J.

SYSTÈME was the name given to the whole mass of financial measures promoted by LAW from June 1716 till his flight from France, December 1720. Law had begun to develop his plans in an unpretending and cautious manner. A joint-stock discount bank in which private individuals were partners, discounting commercial bills at 5 per cent, issuing notes payable to bearer at sight, in bank crowns-notes of 10, 100, and 1000 crowns—the crown (*écu*) was worth 5 livres at that time—opening banking accounts and current accounts.

The capital of this bank was 1,200,000 crowns, divided into shares of 1000 crowns each, standing in the name of 1200 persons. The whole amount was paid up at once, but at the rate of 25 per cent in specie and 75 per cent in government notes, which stood then at a discount of from 75 to 80 per cent of their face value. The actual capital in specie was hence only 375,000 livres (*Tournois*). The actual issue of notes was in no way limited, and by September 1718 it attained the amount of 51 millions of livres. The public were attracted; confidence in the paper, though slightly hesitating at first, soon became unbounded. It should be explained that Law, in issuing it, made some concessions to public favour. The plan was only, in his eyes, a stepping-stone, for, as subsequent events proved, he desired to establish a state bank and paper money, and was a partisan of the MERCANTILE SYSTEM. The government of the regency and the Duke of Orleans in particular welcomed Law's plans warmly—consequently the General Bank became from December 1718 the Royal Bank, the king repurchasing the shares at par. Encouraged by this first success, Law started an enterprise of greater importance which was no less well received by the public. He established a company, this time with a capital of 100 millions

livres, divided into 200,000 shares to bearer of 500 livres each, payable in government notes. We may observe that shares to bearer were now seen in France for the first time. The state was bound to pay to the new society, named the *Compagnie d'Occident*, interest at 4 per cent on the 100 millions of notes withdrawn from circulation. The first annuity, 4 millions, was to form the floating capital for the new enterprise, which was called by the public the *Compagnie du Mississipi*. Its object was to trade with Louisiana, Canada, and the west coast of Africa, with all the rights of sovereignty over those countries. The shares were paid in full, and the duration of the company was fixed at twenty-five years, dating from 6th September 1717. The subscription was only completed in July 1718. The foundations of the *Système* were laid, but the brothers Paris (see PARIS DUVERNEY) sought to undermine them, and, availing themselves of the plan originated by Law, they set to work to compete with it. They valued the royal farms (see FARMER-GENERAL) at 48,500,000, which they divided into shares. This was the *anti-système*, but it was short-lived, and when a year after, 28th October 1719, Law offered 52 millions, the grant to the *anti-système* was cancelled in favour of Law, an arbitrary proceeding, though not thought so then. The notes did not at that date form a forced currency, but the state treasurers had orders to receive them. Besides this the bank opened offices in the country to facilitate their circulation; this became necessary since the bank crown, which formed an ideal and invariable coin, had just been replaced by the *livre tournois*, a coin subject to arbitrary modifications in value; this fatal decision having a reactionary effect, the old notes of 10, 100, and 1000 crowns were exchanged against the new ones of 10, 100, and 1000 livres. It is true that the public, beginning to feel the influence of the fascination which Law exerted, neither understood the meaning of this change nor took any notice of it.

At this date, 4th September 1718, the farm of tobacco came to an end. Law took it at 4,020,000 livres instead of 2 millions, the former rate; as the state owed him 4 millions annually this only left 20,000 livres to be found by the company, on the other hand, the company found in this monopoly a favourable outlet for the produce of its colony, Louisiana.

In May 1719 a share of the *Compagnie d'Occident*, payable, it will be remembered, in depreciated state notes, was worth only 300 livres; the shares soon rose to par. From this time the *Système* took a feverish turn which inevitably proved fatal. To the privileges which it already possessed those of trade with the West Indies and China were added, and on this occasion the *Compagnie d'Occident* took the name of the *Compagnie des Indes*, which it retained until 1769. To pay for this privilege Law was obliged to issue 50,000 shares payable in twenty months, of 550 livres each, being thus at 50 livres premium. From this moment the infatuation of the public was such that in spite of being compelled to present four original shares called *Mères* in order to be able to subscribe to one new one called *Fille*, the operation succeeded. Encouraged by this success, Law made a tender for the mint at 50,000 millions, and issued on this occasion 50,000 new shares of 1000 livres this time, 5 old shares (4 *mères* and 1 *fille*) having to be presented to be able to subscribe one new one —a *petite fille*. It should be added that as in the case of the preceding issue, twenty months were allowed in which to pay up by monthly instalments. The operation was another success for Law. His boldness was encouraged. His turn for gambling led him on to the end of his tether. He attempted the most amazing operation ever yet heard of, the re-paying of the annuities and the value of the offices—1,500,000,000 livres.

To realise this sum, gigantic as it was for the period, Law opened successively three subscriptions at close intervals, 13th and 28th September and 2nd October 1719, for 100,000 shares each issued at 5000 livres, payable in tenths each month, but of which only the first four-tenths could be paid. It may be added that for this triple subscription it was no longer necessary to present again the old shares to which they were in some degree related. As to the value of these shares it continually rose, and the prices of the above-mentioned issue were only the enfeebled reproduction of it. Thus in November 1719, after the aforesaid decree and in consequence of it, they rose to 10,000 livres; they did not long remain at that figure, and in January 1720 they reached their maximum of 18,000 livres.

Finally, it may be said that after having opened the subscription for payment in specie, the holders of state paper of whatever class it might be for every determination of state debt, income, pension, or office, were able to subscribe as a privilege, but by a chance only too easily explicable the shares which these creditors might lawfully have claimed by right were not any longer disposable, having been taken by others. There only remained to them the opportunity of being paid off in notes at par, and with these notes of buying shares, no longer at 5000 but at 10,000 livres. Their disappointment may be understood, but their complaints were lost in the hubbub of the market. Reckoning up the successive issues, there were 600,000 shares which produced at the price of issue—deducting what was not paid —777,500,000 livres, that is, a premium of 477,500,000. In reality 624,000 shares were created, but the rate realised for the last 24,000 is unknown, as they were issued by order of the regent himself. With respect to the issue of notes, it may be understood that the enormous amount of the transactions swelled it extremely. In fact it amounted to 3,070,750,000 livres, as the cashier of the bank chronicled. We are now at the end of this mad and wild speculation, in which nearly every one took part. As to Law, bold but cool-headed gambler as he was, just as success never intoxicated him, he never lost his *sangfroid*, fighting courageously against the storm. He gambled more for pleasure than for gain, as his disinterestedness afterwards showed. The public, when once their cupidity was thoroughly aroused, gave themselves up shamelessly to uncontrolled gambling—to that stock-jobbing which gave the Rue Quincampoix, the street which witnessed this fit of madness, such an unhappy

reputation. From this time the ascendency of the influence of Law over the public began to decline; many people realised their holdings.

Law at first strove against the tide by the issue of decrees; we may mention that of the 11th March 1720, which suppressed the legal currency of specie whether gold or silver—afterwards confusing the position and the rights of creditors and shareholders — that of the 21st May following, which fixed the rate of exchange between notes and shares. Clearly the regent himself gave up the *Système*, though he did not desert Law. Indeed the decree of the 21st May was attributed to the enemies of the *Système* and not to its author. At bottom Law believed that the existence of an inconvertible paper money without a basis of any metal was possible. Also he urged on the issue of notes and the proscription of all precious metal or real value which might take their place; gold, silver, jewels, were the object of his antagonism,—to possess them was to be the enemy of the *Système*. In this Law was a bigoted sectary.

All that remains of the history of the *Système* is a series of contradictory acts, some in favour of the paper currency, some in favour of forced concessions to public opinion or to actual facts. From these arose overwhelming disorders up to the time when Law was compelled by the general indignation to quit France, never to return. The regent, always friendly to Law, sent him at this moment a passport and money. He accepted the passport alone—the only property he carried away with him being 5 millions in valueless bank notes, 800 louis, and 2 rings each worth 2000 crowns; one of these he sent as a gift to Madame de Prie, who had helped him to escape. His fortune when he came to France had been a million and a half.

[Duhautchamp, *Histoire du Système*, The Hague, 1739, 3 vols.— Thiers, *Histoire de Law*, 8vo, Paris, 1826, 2nd ed., 1858.— Émile Levasseur, *Recherches historiques sur le système de Law*, 8vo, 1854.—André Cochut, *Law, son système et son époque*, 1853. — Alph. Courtois, *Histoire des Banques en France*, pt. i., 1881 (see John Law; Taverrel).] A. C. f.

TABULAR STANDARD (see also Index Numbers) is simply, to borrow Professor Nicholson's concise and admirable definition, "an official index number" (*Money and Monetary Problems*, p. 31). The practical object which those who now advocate the adoption of the tabular standard propose is the attainment of a perfectly stable currency for the payment of rents or other deferred contracts. The proper construction of an index number for the regulation of the currency is explained on page 386, Vol. II., of this Dictionary. In other words, the employment of such a standard is expressly limited to *deferred* payments; in these it is proposed (if we may make a local application) that account should be taken by means of a tabular standard of changes in the purchasing power of the sovereign. It is not very easy to mark out the sphere of an inquiry into the tabular standard, but it is clear that the theory of index numbers is a wider field in which the practical correction of the monetary standard is only one of the aims proposed. This will be made clear by a reference to the history of the subject. The compilation of a history of the theory of a tabular standard is generally ascribed to Jevons. But as a matter of fact he borrows almost everything from Joseph Lowe, who, in his *Present state of England*, 1823, as a preliminary to propounding his own scheme, discusses those of previous writers.[1] He mentions at the beginning of ch. x. the works of Bishop W. Fleetwood, Adam Smith, and Sir Frederick Eden on the fluctuation of prices, and finally Sir George Shuckburgh Evelyn's "endeavours to ascertain a standard of weights and measures." This interesting essay was published in *Philosophical Transactions* for 1798, pt. i. p. 176. Lowe is very severe upon Evelyn, and forgets to give the credit due to originality. He refers to the paper as "a tabular statement, which from the clearness of its form, and the confidence of its deductions, obtained much more credit than it deserved, being far from correct even in the fundamental points." In this view he is no doubt influenced by the criticism in Arthur Young's *Inquiry into the progressive value of Money in England*, 1811. We append Sir George Evelyn's table in a much abbreviated form. It will be seen that he has clearly grasped the principle of a consumption standard. His inclusion of day labour is interesting, as its exclusion from most of the recent index-number systems has been a favourite ground for criticism.

Years.	Wheat.	Twelve Miscellaneous articles, viz. an ox, cow, poultry, etc.	Butcher Meat.	Day Labour.	All.
1550	100	100	100	100	*100*
1675	246	239	166	118	*210*
1740	197	492	266	250	*287*
1760	203	492	400	275	*342*
1795	426	752	511	436	*531*

Arthur Young, in the pamphlet above referred to, objects that the grounds of calculation are far from accurate. "Butcher meat"[2] is put on par with wheat; although with the mass of the population it does not form a fifth part of the consumption. Each of the twelve miscellaneous articles is considered of equal importance, and manufactures of every sort are omitted. Put into modern language, his objection amounts to this: the articles are badly selected and are not "weighted" according to their

[1] See Jevons, *Investigations in Currency and Finance*, pp. 122, 123, *n.*

[2] A. Young wrote "Butcher meat."

relative importance. The section in which Sir George Evelyn introduces his "tabular standard" (he is the inventor of the term as well as the thing) is of particular interest. He twice apologises for leaving the mathematical precision of weights and measures for such mean subjects as the prices of provisions and the necessaries of life, but concludes with the hope that, however he may "appear to descend below the dignity of philosophy in such economical researches," he may "find favour with the historian at least, and the antiquary." The following is Evelyn's description of his method:—"It would carry me infinitely too wide to give a detail of all the facts I have collected: I shall therefore content myself with a general table of their results, deduced from taking a mean rate of the price of each article at the particular periods, and afterwards combining these means, to obtain a general mean for the depreciation at that period, and lastly, by interpolation reducing the whole into more regular periods, from the conquest to the present time."

He gives a list of his authorities,[1] and mentions that the various changes which took place during the different reigns, in the weight and alloy of the coins, are allowed for in the table. Thus Evelyn may be regarded as the first writer who definitely proposes a tabular standard; while Joseph Lowe, in the work already quoted, is the first to lay any considerable stress upon its practical value. In § 2 of ch. x. he describes it as a "plan for lessening the injury from fluctuation, and giving a uniform value to money incomes."

Lowe is followed by G. POULETT SCROPE in *An Examination of the bank charter question, with an inquiry into the nature of a just standard of value and suggestions for the improvement of our monetary system*, London, 1833. He there suggests a tabular standard, or table of reference:—"The table need only be sufficiently extended to afford, in the mean price of the whole number of articles contained in it, a standard of value (in its true sense of general purchasing power) as near to complete invariability as can be desirable for any practical purposes." After pointing out the "perfect equity" of such a standard, he attempts to prove its "vast utility" by dwelling on the commutation of tithes, on charity endowments, and on leases. There can be no good agriculture, he argues, without leases. But prudent landlords and solvent tenants "are prevented from entering on the lottery of a long lease at present by the uncertainty that prevails as to the value of money. . . . The use of a tabular standard would obviate all the disadvantages which are justly objected to in corn rents, and give complete security that the rent agreed to shall not vary in value." Scrope advises that the employment of the tabular standard should be entirely optional. He rightly scouts the objection that interested persons, or any combination of them, could possibly, by any efforts, make any appreciable impression on an average "calculated on the mean prices of a long list of articles in all the great markets of Britain through six or twelve months." Scrope's *Principles of Political Economy*, 1833, reproduces the reasoning of the pamphlet. In a note at the end of ch. i. of the pamphlet, he observes, "after the greater part of the above was written, I have found in Mr. Lowe's valuable work a proposal to the same effect." No such acknowledgment is to be found in G. R. PORTER'S *Progress of the Nation*, 1838, 2nd ed. 1851, who, with a naïve assertion of originality, suggests that "it would be highly instructive if tables of prices were made and recorded." Jevons wrongly regards Porter's scheme as identical with that of Scrope. But Porter, a writer of very inferior calibre, seems to have entangled himself and his standard inextricably with other and quite irrelevant aspects of monetary theory. Thus on p. 425 of the 1851 edition, it is clear that he proposes the tabular standard as a remedy for countries with a "local and inconvertible currency." His table will not, he thinks, be needed where a general rise in prices occurs in countries with a gold or silver standard. But under such conditions as led to the famous bullion report (see BULLION COMMITTEE, REPORT OF), "it must be at all times," says Porter, "an interesting and a valuable question to determine whether prices are actually rising or falling or stationary; and to ascertain the degree of such a rise or fall as an indication of the state of the currency." He states, however, the proper principles of a tabular standard, and appends a table compiled in accordance with them, showing the average monthly fluctuations of fifty commodities between the years 1833 and 1837. Porter therefore thinks that the practical value of a tabular standard becomes evident when it is used as a test of the proper behaviour of an inconvertible paper currency. Jevons, in his *Investigations in Currency and Finance*, ch. iii., regards Porter as the author of a method similar to his own. But Jevons, like Scrope, had "almost completed his calculations" when he made the discovery. Porter's mean of fifty articles for the years 1833-37 gives fluctuations which resemble in direction, but greatly exaggerate, those indicated by Jevons's mean of forty articles.

[1] In the construction of Evelyn's table, besides most of the old chronicles and historians, the following books were consulted:—
Bishop Fleetwood, *Chronicon Preciosum*, 2nd ed. 1745. *Liber Garderobae*.—J. Bree, *Sketch of Establishments*, 1791.—*Collection of Ordinances of Royal Household*, Edward III.-William III., 1790, Anon.—*Archæologia*, vol. ii.—Combrune, *Enquiry into Prices of Wheat*, 1000-1765, 1768. Smith, *Wealth of Nations*.—Sir James Steuart, *Principles of Political Economy*, 1767.—Henry, *History of Great Britain*, 5 vols., 1771 (A. Smith's copy).

In ch. xxv. of his *Money*, Jevons argues very strongly in favour of a tabular standard. Now, after sixteen years, the "foresight" shown by Elizabethan statesmen by their act obliging the colleges of Oxford, Cambridge, and Eton to lease their lands for corn rents, would not receive the encomium of a practical economist.

Jevons regards the "multiple legal tender" as an extension of the bimetallic principle for lessening fluctuations by spreading them over a larger area. The only real difficulty which he foresees is that of deciding the proper method of deducing the average. Mr. L. L. Price, *Money and its relation to Prices*, pp. 37, 38, is more pessimistic. "Objection may be raised to the employment of such a standard on the ground of unfamiliarity, or perhaps of a certain refinement of calculation, which is likely to confuse or alarm the plain man, and it may easily prove to be cumbrous or even impossible." Another objection urged by Mr. Price is that it is exceedingly awkward to separate your standard of deferred payments from your medium of exchange. Nevertheless it is highly important that both functions should be satisfactorily performed, and "the instructed economist" would be ready to recognise that "to satisfy this criterion, it is not necessary, it is even unlikely, that the medium and the standard should be identical." Assuming, however, the desirability and practicability of a tabular standard, we are still in the dark as to how it may best be constructed. On this head the reader should refer to the article on INDEX NUMBERS. But a word should be said here on the report of the British Association for 1889, which contains a memorandum by Professor F. Y. Edgeworth on the Index Numbers Committee Report. An explanation is there given of Professor Foxwell's method, which aims at the correction of the currency. This method is distinguished by "the conception of quantity produced, or rather sold, *per unit* of time." This is strictly a currency standard, and the idea of the inventor is "to obtain not the exact amount of metal which should be added to or subtracted from the currency in order to keep it perfectly stable, but rather that ratio in which, if the quantity of currency were increased, other things remaining constant during the increase, the level of prices would be restored."

It will be seen that such a scheme is not adapted to the interests of creditors or annuitants. Nor does it profess to be. A far more fatal objection may be brought against it, viz. that the number of times in which articles change hands is unknowable. The weighting would have to be done by guess work, and a preliminary mean would have to be agreed on as between the guesses of selected experts. Nevertheless, Professor Edgeworth considers that the currency standard deserves more attention than it has received. The index number advocated by Prof. Foxwell would be based on all vendible commodities, no distinction being made between articles of consumption and agents of production. The relative importance of each article would be proportioned to the demand which it makes upon the currency. In other words, Professor Foxwell, "in averaging the respective price variations, would assign to each an importance proportioned to the corresponding value, or rather to that value multiplied by the number of times it changed hands."

Theoretically, therefore, the currency standard is distinguished from the consumption standard in two ways. It includes the prices of labour as well as of commodities; and, in weighting it, pays regard to the work entailed on the currency. In practice, however, we need not expect to find the difference very considerable. The variations shown by different systems of index numbers have been surprisingly small; and Professor Foxwell's method is likely in the words of its exponent to prove "less revolutionary in practice than destructive in theory." An error which may be considerable in the weights becomes inconsiderable in the mean. Meanwhile, the system which commands and deserves the greatest practical consideration is that proposed by Sir Robert Giffen and the committee of the economic section of the British Association. These reports for the years 1887, 1888, 1889, with the memoranda drawn up by Professor Edgeworth, may fairly be regarded as the *locus classicus* for the theory of index numbers and their application to the correction of the monetary standard (see INDEX NUMBERS). F. W. H.

TACITUS, C. CORNELIUS, the historian, was born before 61 A.D., and died after 117 A.D. His chief remaining works are the *Historiæ* and the *Annales*, both fragmentary, and the *Vita Agricolæ*. His short treatise *De situ, moribus, et populis Germaniæ* is of special interest, for, being fuller and written at a much later date than Cæsar's brief notices, it furnishes a distinct picture of the social and economic condition of the ancestors of the English and German nations. Tacitus sketches their organisation in peace and war, describing their national councils—the *principes*, and their *comitatus*—the judicial assemblies, the duties of the priests, the honourable position of the women, and the condition of the slaves, including the free men who had gambled away their liberty. Then he affords (cap. 26) a glimpse of the Teutonic tribal community, with its scattered homesteads, and briefly mentions the annual allotment of the land to the free men in proportion to their public importance, and the change each year of the area of cultivation devoted to corn. For the questions of interest arising from this treatise see Seebohm's *English Village Community*, and Stubbs's *Const. Hist.*, i. pp. 18-41; Pollock, *Land Laws*. R. H.

TACK, TACKING. A technical expression of the English law of mortgages. In Scotland it is used for lease, leasing, and is now practically obsolete.

TAEL. The monetary unit of China is a weight of silver known as the tael. This weight is not identical throughout the empire, varying from that of the government tael (590 grains)

of silver of about 900 fine, to that of the tael of Hankow which weighs about 517 grains. The Canton tael weighs 580 grains, and this is the weight generally used in dealings with foreigners (see CASH and SYCEE). F. E. A.

TAIL. See ENTAIL, LAW OF.

TAILLE. The *taille* is one of the most famous taxes in history. In its origin it was the same as the English TALLAGE (*q.v.*), *i.e.* it was a demesne tax, levied by the king on the royal demesne, and by the great seigneurs on their own lands. As France became more unified and the monarchy stronger, the ÉTATS-GÉNÉRAUX occasionally granted the king a general *taille*. This was resented by the lords as an infringement of their rights and as diminishing the contributions of their vassals to themselves. But the overwhelming national impulse which followed the appearance of Jeanne d'Arc, and led to the recovery of the English conquests, gave the crown a signal victory over the great nobles. In 1439 the states-general at Orleans passed the famous ordinance, which authorised the formation of a standing military force under the control of the king. For the support of the troops the king was authorised to levy a general *taille*, and the nobles were forbidden to levy *taille* on their estates or to obstruct the collection of the payments due to the crown. From this time the *taille* becomes a national and royal tax instead of a local and seigneurial charge.

The ordinance of 1439 is usually said to have established the permanent *taille*, and this is substantially, though not verbally, accurate. There is nothing in the ordinance about the permanence of the charge, but it seems to have been taken for granted as involved in the permanence of the army. On this assumption was based the subsequent claim of the crown to impose taxation without consent. The demand for renewed convocations of the states-general was met by the answer that the people ought to be spared the expense of these assemblies. Thus not only was the *taille* levied as an annual impost, but its amount was arbitrarily increased. The original amount was 1,200,000 livres, but before Charles VII.'s death it had risen to 1,800,000, and under Louis XI. to 4,000,000. In spite of the attempts of subsequent ministers, notably COLBERT, to diminish the *taille*, the receipts under Louis XVI. were reckoned at more than 90,000,000 livres. The tax had long ceased to be specially applied to military expenditure and was absorbed in the general revenue, of which it was the chief component. The enormous increase of the *taille* was the more serious for France because the incidence of the tax was extremely limited. The nobles, as owing personal military service, were from the first entirely exempted from payment. At all time payment of the *taille* was a sign of *roture* (see ROTURIER). And by the 18th century the privilege of exemption was very widely extended. It was shared by the clergy, by the magistracy, by the holders of the innumerable offices which were created from time to time for sale, by members of the university, by municipal corporations, and by a number of towns which had purchased immunity by payment of a commutation. Thus as the burden of the *taille* increased, there was a corresponding diminution of the classes and persons subject to its exaction. Practically it was a tax on the agricultural classes, levied directly either on the value of the land or on the profits of cultivation.

In some provinces of France the *taille* was a land-tax, the *taille réelle*. In these provinces the assessment was based upon a *cadastre*, *i.e.* a sort of small Domesday book compiled at regular intervals (see CADASTRAL SURVEY). The obligation to pay the real *taille* depended not on the status of the cultivator but on the original tenure of the land. Land which had once paid *taille* continued to pay it even though it had passed from a *roturier* into noble hands. The provinces in which the *taille* was real belonged almost entirely to the *pays d'états*, and in them the collection was entrusted not to royal officers but to agents of the provincial estates. But the amount which the province was forced to contribute was always determined by the royal council on information received from the intendant.

In all the other provinces the *taille* was personal and was levied on the presumed profits of the cultivator. The assessment was perfectly arbitrary, and was usually based on the stock used in farming or on a man's mode of life. The French peasant was subjected, in fact, to a dilemma like that of MORTON'S FORK: if he lived in comfort, his power to contribute was obvious; if, on the other hand, he lived meanly, then his savings must be considerable. The unit of assessment was the parish, and the responsible official was called the collector, and was elected by his fellow-villagers in the parish assembly. The collector received from the intendant a statement of the amount due from the village, which was usually fixed every three years. This sum he divided arbitrarily among the villagers, according to his own estimate of their wealth, and then proceeded, accompanied by a constable, to collect the amount due from each. If he failed to produce the required sum, his property and person could be seized as security for the deficit. The office was so loathed, that it was considered necessary to choose a new collector every year. Not only was the holder frequently ruined, but he was naturally the object of his neighbours' hatred and distrust. TURGOT declares that "the office of collector drives to despair, and generally to ruin, those on whom it is imposed; by this means all the wealthier families in a village are successively reduced to ruin." Few taxes

have been so disastrous in their results as the *taille personelle*. Adam Smith has shown that it constituted a direct discouragement to the improvement of agriculture, and its social consequences were quite as lamentable as its economical defects. No man knew from year to year what he would be called upon to pay. If he was unfairly assessed, he had practically no remedy; and it was impossible for the assessment to be otherwise than unfair. The peasants who possessed any savings resorted to the most ingenious devices to conceal them. It was one of their chief aims in life to disguise from their neighbours the real state of their affairs. At the same time it was everybody's interest to ascertain or even to exaggerate the wealth of his neighbours, because an increase of their *taille* might result in direct relief to himself. Thus the result of this wretched system was to create in every district an inveterate habit of suspicion and concealment, and so to poison or to destroy all the amenities of neighbourly intercourse.

[Clamageran, *Histoire de l'Impot en France.*—De Tocqueville, *L'Ancien Régime.*—Adam Smith, *Wealth of Nations*, bk. iii. ch. ii., and bk. v. ch. ii.] R. L.

TAILZIE. See ENTAIL, SCOTLAND.

TALE. Payments into the exchequer were formerly made in one of two ways, *ad scalam* (or *ad pensum*), that is to say, *by weight*—when the money was weighed and the amount reckoned by its weight; or *numero*, that is by *Tale*, when the coin was simply counted, and each piece reckoned at its face value.

[Pipe Roll Society's publications, vol. v.] A. E. S.

TALENT, GREEK. The ancient weight known under this name was equal to 60 minæ or 6000 drachmæ. Its weight has been estimated at about 57 lbs. avoir., and its value in sterling at about £240.

The modern Greek talent is a weight equal to that of 150 kilogrammes. This weight is, however, but little used. F. E. A.

TALENT, HEBREW. A weight and also a money of account. Much uncertainty now exists as to the precise weight and value of the talent, the former being variously estimated at from 93 to 117 lbs. avoir.

The silver talent was the equivalent of 3000 silver shekels, and the gold talent of 10,000 gold shekels. The value of the silver talent in sterling is estimated at from £340 to £400, and that of the gold talent at from £5000 to £6000.

[Williamson's *Money of the Bible.*] F. E. A.

TALLAGE. Before the Norman conquest there was but little national taxation, and the ordinary expenses of the king were mostly defrayed by the revenue received from his demesne. The circumstances of the Norman conquest enabled the king to choose his demesne, and William I. was wise enough to include in it most of the rising towns. The lands belonging to the crown at the time of Domesday come to be known as "ancient demesne," as contrasted with those lands which subsequently fell in to the crown by ESCHEAT or FORFEITURE. For special purposes the king could demand supplies from his demesne tenants, and these are called sometimes *donum* and *auxilium* (see AID), but more usually *tallagium*. These tallages are assessed by royal commissioners, but the chief towns, such as London, usually paid a composition, and levied an equivalent sum on the citizens by their own methods. In the 13th century various attempts were made to limit the king's arbitrary power of raising a revenue. In the great charter he was made dependent on the consent of the *Commune Consilium* for aids and scutages, but no mention was made of tallages. In 1297 Edward I. was compelled to confirm the charters with additional articles restraining his power of taxation. The articles which Edward actually agreed to do not mention tallages, but the record of Walter of Hemingburgh seems to prove that the barons proposed their inclusion. In the time of Charles I. the articles given in Hemingburgh were construed as being a genuine statute, and are quoted in the Petition of Right as the statute *de tallagio non concedendo*. But there can be no doubt that Edward did not resign the right of taxing demesne, and tallages continued to be levied by himself and by his son and grandson. It is probable that the barons were less persistent on this point than others, because a resignation of the royal right of tallage would involve a loss of their own power of tallaging their own tenants. But as the system of national taxation developed, and the powers of parliament increased *pari passu*, it was impossible to leave the crown in possession of such an independent revenue as it could obtain by the arbitrary taxation of the cities and boroughs which had grown up on the ancient demesne. A statute of 1340, though making no specific mention of tallage, seems to have had the effect of necessitating parliamentary consent for all direct taxes. From this time the separate taxation of demesne came to an end, and the whole community was taxed by parliamentary grants assessed upon personal property. But the special obligations of demesne tenants were still expressed in the fact that they paid a tenth while the counties outside the demesne paid a fifteenth (see also SPENDINGS).

[Stubbs, *Constitutional History.*—Dowell, *History of Taxation and Taxes in England.*] R. L.

TALLIES. An ancient form of voucher or receipt formerly used in all transactions whose nature rendered a voucher necessary. A piece of wood was taken, shaped roughly like a thick knife blade. In the edge

notches were cut to represent the amount of money or goods changing hands; notches of different sizes representing the different denominations of money or weight. The nature of the transaction was then written in duplicate on the two sides. The piece of wood was then split lengthways through the notches by means of a cut parallel to the sides, and each party kept a part, a thin piece of wood with notches in the edge and writing on one side. If either party disputed the payment the matter could easily be settled by fitting the two parts together and seeing whether they matched or not. If it became necessary to distinguish between the two parts of the tally, the part kept by the payee was called the counter-tally, the other part being called the tally. Tallies were used in the exchequer as lately as 1827 in giving receipts to accounting officers for interim payments on account. The tallies of that date are much larger than those in use in the middle ages, the former being often 3 or 4 *feet* long, while the latter seldom exceeded as many inches.

[Hall, *Curiosities and Antiquities of the Exchequer.*] A. E. S.

There is an interesting reference to tallies in connection with Wm. Godwin: "In his old age a small sinecure office (yeoman usher of the exchequer, *Godwin's Life*, vol. ii. 322) was given to him by the Grey ministry, with rooms in connection with the House of Commons, and there he loved to show the old Star Chamber, which was so soon to be destroyed before his face, and to exhibit the tallies, the burning of which was to occasion the destruction" (Miss Martineau, *Hist. of the Peace*, iv. p. 80).

TALLY. See Tallies.

TALLY SHOPS, See Truck.

TALLY TRADE. A system of "selling goods on short credit," the accounts of which are kept by an arrangement of tallies in the place of book or ledger accounts. These goods were thus retailed on these terms at the tally-shops which were commonly to be seen a generation ago, and are doubtless yet to be met with in remote districts—as also they were sold by pedlars who hawked them about the country, receiving payment for the same by weekly instalments. "The unconscionable tallyman," we read, " . . . lets them have ten shillings' worth of sorry commodities, or scarce so much, on security to pay him twenty shillings by twelvepence a week" (*Four for a Penny*, Davies, 1678, Harl. Misc., 148).

The term "tallyman" is also applied to one who "sells by sample goods to be delivered afterwards, or who takes orders for such goods" (S. Dowell, *Taxes in England*, iii. 38). *Vide* also Mayhew, *London Labour and London Poor*, i. 422, quoted from in the *Century Dictionary*, art. "Tallyman."—Disraeli's *Sybil*. A. L.

TALON. Securities to bearer (see Bearer) are generally provided with a sheet containing a number of certificates, entitling the holder to the interest specified thereon at the time named thereon, which are successively detached as they fall due, and are called "coupons" (see Coupon). Sometimes "coupons" are not furnished for the whole time of the currency of the security, and in such a case there is frequently a certificate entitling the bearer to a new coupon-sheet at the time of the old coupon-sheet being exhausted. This certificate is called the "Talon." E. S.

TAMMANY HALL. A political society in New York city that for many years has exercised a powerful influence in city and state and even in national politics. The name is also given to the building of the society, and to the political party organisation separate from the society, though largely controlled by it. It derives its name from an Indian chief who is said to have welcomed William Penn and made the first treaty with him. The society was founded in 1789, called the Columbian Order. Tammany was taken as its good genius, and when it was incorporated in 1805, the name Tammany society was added. It had for officers a grand sachem and twelve subordinate chiefs of tribes, a wiskinski (doorkeeper), a sagamore (master of ceremonies), etc. The Indian names for its officers are still retained.

Its purpose was apparently social and charitable at first; but it soon began to exercise political influence, and doubtless contributed much to the selection of Aaron Burr as vice-president. Its chief field of activity has been New York city, whose officers for many years have been largely in its control. It has been most widely known from the scandals connected with its highest officers during the period of the "Tweed ring."

William M. Tweed, in early life a chairmaker, later a fireman, had made himself so popular in politics in his ward and later in the city, that he had been elected to the state senate and to congress. He and three or four other Tammany officers, through his control of the party organisation, got so complete a control of the city that, holding in their own hands and those of their creatures the chief offices of the city and some of the courts, they were able to plunder the city treasury almost without stint. Through their judges they naturalised voters; with their ill-gotten money they bought them. By their influence in elections they so controlled the state legislature that laws were passed amending the city charter so as to put even more power into their hands, and the governor elected by their influence could veto any hostile legislation. They sold contracts; bought property, and made city improvements to increase its value; then by their appointees lowered the burden of taxes for betterments on it. They let contracts to companies in which they were interested, nearly $3,000,000 (£600,000) being paid them in two years for

printing and stationery alone, while paving contracts were scarcely less profitable.

False claims against the city were presented by them, audited by themselves, and paid. A new court house estimated in 1868 to cost $250,000 (£50,000) had cost in 1871 from $8,000,000 (£1,600,000) to $13,000,000 (£2,600,000), according to different authorities, and it was still unfinished. Contractors were compelled to add sums to their bills, which were taken by the ring.

At length one of the subordinate accomplices, dissatisfied with his treatment by the leaders, attempted to gain more by threats, and finally in revenge for failure gave information regarding the practices of the ring to the *New York Times*, which published it.

This attack was followed by others; the best men in the democratic party and in Tammany turned against the corrupt leaders. They were cited before the court; their candidates were opposed in the next election, and finally, some of the corrupt members of the ring fleeing, others resisting the action of the courts, the people defeated nearly all the Tammany candidates but Tweed at the polls, and broke the power of Tammany. Tweed, though re-elected to the state senate by his own district, was soon arrested, tried, convicted, and sentenced to prison for twelve years. Later, released on a technicality, he was re-arrested on a civil suit by the city on a claim of $6,000,000 (£1,200,000) damages, escaped, fled to Spain, was sent back, and died in prison, 1876.

The breaking of the ring put Tammany into the control of the better element; and, under John Kelly as grand sachem, within a few years, it again controlled New York city. After his death control passed to Richard Croker, who, until his refusal to continue in his position, 1894, managed its political affairs with consummate ability.

Again, in 1894, an investigation proved that the policemen and other officers were levying blackmail on citizens and securing illicit gains for Tammany leaders. A popular revolt wrenched the control of the city government from their hands, and until 1897 Tammany had practically no voice in the city government. In 1897 Richard Croker was again placed at its head; its opponents were divided, and it won a complete victory, which gave it control of the city government.

Its careful organisation, unison of social features with its political activity, and especially its unquestioned adherence to the spirit of democracy in its broadest, freest sense, with its unscrupulous use of city patronage in the promotion of its interests among the poor, binds the great mass of the poorer, more ignorant voters of New York city to it, and so closely that we may expect it continually to reappear in power as often as it puts itself even temporarily on the side of right and good government.

No other political organisation has so successfully and permanently controlled the mass of voters, who, with real power in their hands, have been willing to yield almost absolute control to their leaders, so long as the latter were successful in carrying elections, and discreet in distributing the spoils of office.

J. W. J.

[The example of Tammany Hall is given as one of the most prominent instances of the influence of faction and corruption on local matters. This has been of late years considerable and very injurious. It opens the question whether a better method of election of local officers than that at present existing might not be devised.]

TANISTRY. An ancient Irish custom, by which the lands of a deceased lord descended, not to his nearest relative, but to the most capable and powerful of his near relatives. This custom was a natural result of the disturbed state of the country, which made a strong hand necessary to hold any land at all. Equally naturally, by causing continual quarrels in families, and quarrels in Ireland were not settled without fighting in those days, the custom tended to perpetuate the unsettled state in spite of all efforts to the contrary. When the reform of Irish affairs was undertaken in the reign of James I., tanistry was declared illegal.

[Hallam, *Constitutional History*, vol. iii. ch. xviii.] A. E. S.

TANTEO. A privilege granted to Spanish manufacturers, empowering them to prevent the export of raw material, such as silk, wool, corn, etc., produced in Spain, and which was required in their trade.

[Canga Argüelles, *Diccionario de la Hacienda* (London, 1826).] E. Ca.

TAPIA, Carlo (di) Marchese di Belmonte (17th century). Born at Lanciano (Abruzzi), a magistrate with jurisdiction over the provision markets in the kingdom of Naples. He wrote a treatise on *Abundance*, in which he shows the need of modification in the system of food supply then existing, so as to meet the requirements of the day, of which, as a magistrate responsible for the corn supply of the kingdom, he had practical knowledge. Tapia analyses the system of food supply more scientifically than the other Italian writers of the day, either because he is more moderate in theory, or because he regards the question as a magistrate and not as a moralist. He classifies the causes of famine into those that are supernatural, natural, and accidental, and explains the regulations as to food supply then enforced by governments and practically upheld by all writers. He does not, like these, express absolute aversion to trade as a means of subsistence, and recognises the injury incurred by the prohibition of export of corn; he would

allow the export of any surplus in order that agriculture might not suffer through restriction. Though Tapia advocates a fixed legal price for corn, he suggests that, in doing this, account should be taken of cost of production, in order, partially at least, to satisfy both sellers and buyers.

Trattato dell' abbondanza (written earlier), Naples, 1638.

[See Gobbi, *L'economia politica negli scrittori italiani del secolo XVIe XVII.*, Milan, Hoepli, 1889.—*La concorrenza estera, etc.*, Milan, Hoepli, 1884.—Fornari, *Delle teorie economiche nelle provincie Napoletane*, Milan, Hoepli, 1882.] U. R.

TARE AND TRET. These terms are becoming obsolete in practical commerce, but are still found in books on arithmetic. *Tare* is an allowance for the weight of the box or package containing goods bought; *Tret* an allowance of 4 lb. in 104 lb. for waste; CLOFF, another term now obsolete, was an allowance of 2 lb. in 3 cwt., made in order that the retailer might cover the loss incurred in dividing the goods into small parcels for sale, and sell the whole for the same weight as he bought it.

[*Penny Cyclopædia*, Art. "Tare."] A. E. S.

TARGIONI, LUIGI (18th to 19th century), a Neapolitan writer, the author of several pamphlets, the most important being one on the means of providing for the numerous poor in the kingdom of Naples. Targioni attributed the increase of begging to the raising the nominal value of the coins, to the condition of agriculture—the excessive taxation, and the deficiency of means of communication. The improvement of these conditions was the only method of providing work for able-bodied men. Targioni advocated compelling the rich to help the poor in order to provide for the incapable.

Saggi fisici, politici ed economici, 1786.—*Idee relative ai mezzi migliori per mantenere ed impiegare i poveri*, 1802.—*Memoria sulla agricoltura e la pastorizia, etc.*, Naples, 1814 (see Fornari, *Delle teorie economiche nelle provincie napoletane II.*, 1888). U. R.

TARIFF, a Moorish term which has come into our language through the Spanish, *la tarifa*, properly the enumeration of prices. It is not unfrequently used in English in a perfectly general way, as in the case of the tariff of a hotel. Its usual signification in financial or economic language is the schedule of duties charged on the importation of any articles into any given country. That is what is always understood by the tariff of a country (see IMPORT DUTIES). C. A. H.

TATHAM, William (1752-1819).

An American engineer, attorney, colonel, etc., but born and resident in England 1752-69, 1789, 1796-1805, wrote six books or pamphlets on waterways: (1) *Two Tracts relating to the Canal between Norfolk and North Carolina;* (2) *Plan for insulating the Metropolis* (1797); (3) *Remarks on Inland Canals* (1798); (4) *Political Economy of Inland Navigation* (1799)—this, his most important work, incorporates (2) and (3), and is mainly practical, but refers to Sir J. Stewart's theories on self-interest, population, and the scope of political economy as authoritative, pp. 65 *et seq.*; (5) *National Irrigation* (1801)—mainly abstracted from the reports organised by the British board of agriculture; (6) and two reports *On the Navigation of the Thames.* His (7) *Communications concerning the Agriculture and Commerce of the United States* (1800)—a supplement to a communication to the board of agriculture; (8) *Essay on the Culture and Commerce of Tobacco* (1800); (9) *Oxen for Tillage* (1801); (10) *Circular Architecture* (1803); and reports on (11) Tennessee, and (12) Virginia, are drier but practical. His (13) *Collection of Sundry Documents respecting Himself* (1797), is autobiographical.

[Appleton, *Cyclopœdia of American Biography* (1889).] J. D. R.

TAULA DE CAMBI (Catalan for table of exchange). In 1401 a bank of exchange and deposits was founded under this name in Barcelona; its operations spread rapidly, and in a royal charter granted in 1472 by King Juan II. it is described as "*Tabula insignis, celebris et tutissima.*" In Valencia, where, as in Catalonia, the laws against usury were not so stringent as in the rest of Europe, a bank was also established under the same name by royal charter, and worked under the supervision of the municipal authorities of the city.

[See Colmeiro, *Historia de la Economía Política en España*, i. pp. 411-12.] E. Ca.

TAVEREEL (or TAFEREEL)

Het groote Tavereel der Dwaasheid. "The great picture of Folly, representing the rise, progress, and decline of the trade in Shares, Bubbles and Wind, in France, England, and the Netherlands, in the year 1720. Being a collection of all the Rules and Projects of the Companies started for Assurance, Navigation, Commerce, etc., in the Netherlands, both those actually carried out and those rejected by the governments of particular provinces.

"With Engravings, Comedies, and Poems, by several amateurs, in mockery of these shameful and fraudulent concerns whereby in this year so many families and persons, gentle and semple, have been ruined and impoverished, and whereby genuine business has been brought to a standstill, both in France, England, and the Netherlands.

"So long as money-loving man
Is full-equipt with gold and gear
He falls sure prey to charlatan
Whom grasping fools feed all the year.

"Printed for the warning of posterity in the year fatal to so many wise men and fools, 1720."

The above is a free translation of the title-page

of a singular anonymous folio volume, without name or place of publication, but perhaps published by Isaak Stokman, Amsterdam, whose name occurs on pamphlets often included in the collection. The list of companies and undertakings was, however, published by C. Hoffeling at the Hague in 1721. The elaborate frontispiece representing the Share-Booth or Vestibule of Quinquenpoix (the Exchange Alley of Paris in those days), the account of the various Dutch companies (25 pages) at the beginning, and the series of Dutch comedies (52 pp.) and Dutch poems (35 pp.) at the end, are common to most copies; but the number and the order of the engravings differ very greatly in the different copies. They are usually between sixty and ninety in number, including the portraits of John LAW, who is the *bête noire* of all the artists. Nearly all the cartoons have interpreting verses or mottoes in Dutch; French occurs rarely, English more rarely still. A full account is given of the whole book in Frederik Muller's *Tavereel der Dwaasheid*, reprinted from the *Beredeneerde beschrijving van Nederlandsche Historieprenten*, pt. ii. (Fred. Muller, Amsterdam, 1876). See also the catalogue of satirical prints in the British Museum, vol. ii., 1837, No. 1612-1693. J. B.

TAXATION

History, p. 517; General Principles, p. 518; Tax Systems, p. 519; Classification and Incidence, p. 520; (1) Taxes on Land, p. 520; (2) On Houses, p. 521; (3) On Property and Capital, p. 521; (4) On Income, p. 521; (5) Customs, p. 521; (6) Excise, p. 522; (7) On Communication and Transport, p. 522; (8) Stamps, p. 523; (9) Death duties, p. 523.

HISTORY.—"A tax[1] is a compulsory contribution of the wealth of a person or body of persons for the service of the public powers" (Bastable, *Public Finance*, 1895, p. 249). The contribution is not necessarily one of money or goods, for compulsory military service and FORCED LABOUR (*q.v.* and CORVÉE) must be reckoned in the category of taxes. Dealing here, however, with money and goods only, we find that a contribution of such was, until comparatively recent times, as a rule merely a supplement to other sources of public revenue, such as crown lands and mines, penalties, feudal aids, etc. Hence Blackstone, writing in 1765, terms these last the "ordinary" revenue of the English kings, whilst he classes taxes as "extraordinary" (*Commentaries*, bk. i. ch. 8).

In ancient Egypt there was no taxation proper, the payment by the peasants to the king of one-fifth of the produce of their lands being rather in the nature of a *métayer* rent than a land-tax (see Herodotus, bk. ii. 109).

In Greece the ordinary revenue of the Athenian state, arising from tribute and the silver mines at Laureion, was supplemented by taxes in the shape of customs and tolls, a percentage on rates, fees for state protection, law-court fees, and fines. The extraordinary revenue required for war purposes was obtained partly from voluntary contributions, partly from a graduated income or property tax. Rich citizens were further liable to special burdens, called *leiturgies*, as the giving of plays and the equipping of ships (Gilbert, *The Constitutional Antiquities of Sparta and Athens*, 349-376).

With the Romans the system of taxation was better organised. Dowell (1st ed., pt. i. ch. iii.) gives the following as the principal taxes in use by them at different times and in different countries—tribute from lands, taxes on houses and animals, successions, income taxes on senators, tradesmen, and others, poll taxes; with, as indirect taxes, duties on exports and imports, and on commodities sold at auction, or in the public market (see also Clamageran, *Histoire de l'impôt en France*, i. 1-108).

With the decline of the Roman power the system of taxation also fell into confusion. According to Hallam (*Middle Ages*, ch. ii. pt. ii.) "the early European kingdoms knew neither the necessities, nor ingenuity of modern finance. From their demesne lands (see DEMESNE), the kings of France and Lombardy supplied the common expenses of a barbarous court. Even Charlemagne regulated the economy of his farms with the minuteness of a steward. . . . Their actual revenue was chiefly derived from free gifts, made, according to an ancient German custom, at the annual assemblies . . . of the nation, from amercements paid by alodial proprietors for default of military service, and from the freda or fines accruing to the judge out of compositions for murder."

In England the rent of the royal demesne sufficed originally for all ordinary purposes, but in Anglo-Saxon times we find occasional land-taxes in the shape of Shipgeld (see SHIP-MONEY) and DANEGELD, and a HEARTH-TAX. Subsequently the incidents and casualties of the feudal tenures afforded for nearly six centuries a considerable revenue, the charges being, however, rather occasional extortion from individuals than systematic taxation. Expenses of wars were provided for partly by levy of scutage in lieu of KNIGHT'S SERVICE, and TALLAGE (*q.v.*), all the demesne contributing to the latter sums, fixed after negotiation with the exchequer officers. Towards the end of the 13th century scutage and tallage were practically superseded by general taxes on movables, granted from time to time by parliament. These were known from 1334 to 1623 as FIFTEENTHS AND TENTHS, and were represented by a lump sum. About the same period also CUSTOMS DUTIES began to be important as permanent sources of revenue. From 1377 poll-taxes were tried at intervals till 1698, but were unpopular on

[1] Tax, short for *taxatio*, from low Latin *taxare*, is the same as assessment. It occurs in the Statute Book first in 1327. . . . (Dowell, *History of Taxation*, 2nd ed. p. xii.).

account of their directness and inequality. Early in the 15th century special taxes were imposed occasionally on landowners and holders of rent-charges. These developed later into forms of a graduated income-tax. In the Tudor period SUBSIDIES, raised nominally by a poundage rate on lands and goods, were granted to supplement fifteenths and tenths. This system of direct taxation, together with increasing duties of customs, supplied the crown with revenue until, under Charles I., parliamentary control temporarily ceased. By this time almost all the demesne had been granted away. During the Commonwealth MONTHLY ASSESSMENTS took the place of subsidies, and the EXCISE was introduced. After the Restoration, the various direct taxes hitherto levied merged by degrees into a LAND TAX of varying but moderate amount, the rapidly increasing needs of the state being met by additional duties of customs and excise, by stamp, house, licence and death duties, and by an income tax, till by the close of the Napoleonic wars hardly a luxury, or even a necessary, hardly a manufacture, escaped charge. The subsequent history of taxation in this country is one mainly of repeal, reduction, and adjustment, under the combined influence of the diminution of pressure, the study of general principles, and the growth of democracy (Dowell, 2nd ed., vols. i. and ii.).

GENERAL PRINCIPLES.—The grounds for adopting the different kinds of taxes at various times, and in various conditions of society, were practical rather than theoretical, and it was only towards the end of the 18th century that the general principles which should govern taxation began to be seriously considered. These may be expressed in the well-known maxims of Adam Smith (*Wealth of Nations*, bk. v. ch. ii. pt. ii.).

(1) "The subjects of every state *ought* to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state."

(2) "The tax which each individual is bound to pay, ought to be certain, and not arbitrary. The form of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person."

(3) "Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it."

(4) "Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state."

These maxims, which may be shortly described as inculcating equality, certainty, convenience and economy, although adopted by most economic writers, have of late been subjected to hostile criticism (*e.g.* F. A. Walker, *Political Economy*, §§ 587-589). Bastable (*Public Finance*, p. 388), surveying the most prominent attempts to supply a fresh series of precepts, lays down the following principles for the guidance of the practical financier:—Taxation should be (1) productive; (2) economical—that is, inexpensive in collection and of a nature to retard as little as possible the growth of wealth; (3) justly distributed; and (4) elastic. That it should be (5) certain, and (6) convenient, he regards as matters of less interest, these canons being now generally observed. In the event of conflict betweeen the several canons, a solution of the difficulty should be reached by the surrender of the less important rule. Thus, the successful administration of the state being the final object, convenience, or even equity, may have to yield to productiveness. (See also Dowell, *Income Tax Laws*, 4th ed. p. lxi.).

Reverting to Adam Smith's four maxims, it may be observed that the last three are obvious rules or administrative precepts respecting *taxes*, to be followed in the case of each separate tax. But the first is a rule of *taxation*, and is applicable to the tax system in general. Taking the rule as a whole, it has been urged that its precise meaning is open to doubt. The last six words, "under the protection of the state," "are either irrelevant, or else they mean that the protection enjoyed affords the measure of the duty to contribute" (F. A. Walker, *Political Economy*, § 588). If this interpretation were correct the rule would embody the favourite doctrine of the 17th and 18th centuries, that taxes are a *quid pro quo*—the price paid for the services of the public authorities. This doctrine was employed as a plea for universality of taxation at a time when, whilst receiving at least equal benefits, certain privileged classes were exempted, as in France before the Revolution, when the peasant bore the whole cost of government. It is, however, no longer accepted. "It is now generally agreed that we pay taxes not because the state protects us, or because we get any benefits from the state, but simply because the state is a part of us. The duty of supporting and protecting it is born with us" (Seligman, *Essays in Taxation*, p. 72. See also Ely *Taxation in American States and Cities*, pp. 13-18). To some small extent, indeed, it may be possible to measure the value of the services rendered by government in matters of law and police, and to exact payment in the shape of fees; but it is manifestly impossible to assess each individual for the benefit accruing to his person and property by the maintenance of national existence and social order (Sidgwick, *Political Economy*, pp. 560, 561; Cohn, *Science*

of Finance, §§ 83, 84, 97, 108). In fact, as Bastable (p. 253) states, "The equivalence between the amount of taxes paid and the benefits obtained is rather to be found in the case of the community as a whole than of any special part of it."

For the taxation required to defray the greater part of the governmental expenditure of a modern state, some other principle of distribution than payment in proportion to services received (called the Social Dividend theory, see F. A. Walker, *Political Economy*, § 583) must therefore be sought. It is to be found, as Adam Smith indicated, in payment according to respective ability, a phrase which is, however, not now interpreted as implying strictly in proportion to revenue, for equality of taxation means (J. S. Mill, *Political Economy*, bk. v. ch. ii. § 2) equality of *sacrifice*. To secure this equality the necessaries of life should go free, superfluous consumption only being charged. "People should be taxed, not in proportion to what they have, but to what they can afford to spend" (*Ibid.* § 4). The exemption of necessaries in a country with a system of poor-relief would seem to be a matter of course, for "If government risks some of the evils of communism in order to secure the poorer citizens from want of the necessaries of life, consistency requires that it should not endeavour to *take* by taxation from the poor who remain independent a part of what it would have to *give* them if they sought its aid" (Sidgwick, *Elements of Politics*, p. 174). In opposition to this practical view of the exemption of the minimum of existence, see the view in Cohn that the state is part of the necessaries of life, and its demands therefore part and parcel of the demands of subsistence (*Science of Finance*, §§ 222, 242). In the *Final Report of the Royal Commission on the Financial Relations between Great Britain and Ireland*, dated 1896 [c. 8262], one of the conclusions drawn is that identity of rates of taxation does not necessarily involve equality of burden. This conclusion is based partly on arguments that what may be luxuries or superfluities in one country are necessaries in another (*e.g.* p. 40). Whether equality of sacrifice does not require that taxation should be progressive, *i.e.* that the percentage of charge should rise with the amount of the income, is a problem practically attempted to be solved in recent times by progressive income taxes and death duties. This attempt is due perhaps rather to financial necessity and the growth of democracy than to the force of economic reasoning (see GRADUATED TAXATION). (See Edgeworth, "The Pure Theory of Taxation," *Economic Journal*, vii. 550, for the view on utilitarian grounds, that *minimum*, rather than *equal*, sacrifice is the sovereign principle of taxation.)

TAX SYSTEMS.—Taxation based on the foregoing general principles may be raised under various systems. The most simple and logical plan would seem to be to claim from each taxpayer his contribution in one amount having reference in some way to his income. But such a method, though often advocated by theorists, as also have been single taxes on expenditure, land, rent, realised property, and capital (see IMPÔT UNIQUE; SINGLE TAX), has not in practice been adopted by any country. At the present time there is a strong agitation in America in favour of a single tax on land-values. The many special objections, fiscal, political, moral, and economic, to a tax of this description (see Seligman, *Essays in Taxation*, pp. 64-94), would not apply to a single tax on income, but the difficulty of making a correct assessment, and the irritation that would be caused by the collection of such a large and undisguised impost, are sufficient obstacles to a successful attempt in this direction. A multiple or plural system is thus practically necessary. The taxes forming it may be either "direct," on income—rent, interest, earnings—and property; or "indirect," on commodities (see, however, DIRECT TAXATION, INDIRECT TAXATION, for various interpretations of these terms). The bulk of the taxation revenue of a modern state is raised by a judicious mixture of both forms, the intermediate class of charges on transfers, communications, etc., being used as supplementary only. Such a combination, whilst it minimises the effects resulting from the unpopularity of direct taxes, and the disturbance of industry caused by indirect, has an additional advantage in its elasticity, which makes it possible to adjust receipts to expenditure without undue inconvenience to the taxpayers. "The steady growth of the receipts from commodities in times of prosperity, the definite yield of direct taxes, and the power of altering the rate of the income-tax, taken together, provide the conditions for securing such growth or contraction of receipts as may be thought most desirable" (Bastable, *Public Finance*, p. 336. See, however, Blunden, "The Position and Function of the Income-Tax in the British Fiscal System," *Economic Journal*, ii. 637, for an objection to the use of the income-tax in normal times to adjust taxation). Plehn, *Introduction to Public Finance*, pp. 148-168, states that the great reforms of 1893, made under the leadership of Dr. Miguel, place Prussia far in advance of all other countries in the theoretical perfection of her tax system. In England, he says, special difficulties and objections have been met with little reference to any general plan, the result being a steady approach to a better state of affairs, with only an occasional intensification of existing evils, due to the attempt to cure symptoms rather than to

seek the underlying causes of the trouble. He animadverts strongly on the entire absence of system in American taxation.

CLASSIFICATION AND INCIDENCE. — Before proceeding to consider the particular charges which the threefold system of taxation indicated above might embrace, it is desirable to allude to the difficulty experienced in making a satisfactory classification of taxes. Besides the varying division into "direct" and "indirect," a distribution of taxes into "real" and "personal" is sometimes found,—taxes on land, houses, and goods being regarded as "real," and capitation and income-taxes as "personal." This distinction is inconvenient for purposes of classification, all taxation, including that nominally charged on things, being in the last resort paid by persons. Owing, however, to the frequent possibility of shifting the burden as originally imposed, the determination of the actual person by whom a particular tax is ultimately paid is a very difficult problem. Adam Smith, holding that every tax must be finally paid from one or other of the different sources of revenue mentioned by him—rent, profit, and wages—or from all of them indifferently, proceeded to group taxes under those three heads, with sub-divisions. This classification, which English economists have endeavoured to follow as far as possible, is also open to the objection that taxation falls on persons, not things; persons, moreover, often receiving their income from more than one of the different economic shares in distribution mentioned. Further, the ultimate source of taxation is not now deemed to be revenue only, but the collective wealth of the country, including, at any given time, both capital and revenue. "To provide that taxation shall fall entirely on income, and not at all on capital, is beyond the power of any system of fiscal arrangements" (J. S. Mill, *Principles*, bk. v. ch. ii. § 7). "Any tax is certain to take some wealth that would otherwise have been devoted to the aid of production, and also some that, if left to the taxpayers, would have been consumed unproductively. . . . The real aim should be to so direct it [taxation] as to interfere to the smallest extent with the action of the forces that promote accumulation" (Bastable, *Public Finance*, p. 275). The defects in the economical mode of classification have led to what Bastable (p. 261) terms the "empirical" or "fiscal" one, which takes the actual kinds of taxation and arranges them in the most convenient way. The categories thus formed, mostly by German economists, vary considerably. Cohn adopts Wagner's (*Finanzwissenschaft*, § 451) classification into taxes on earnings, on possession, and on consumption, "with the thought that it may serve the purpose of bringing uniformity and agreement into the systematic treatment of taxation" (*Science of Finance*, § 332). But whatever broad divisions may be adopted, the charges imposed in a modern state usually range themselves under some of the following heads: —Taxes on (1) land, (2) houses, (3) property and capital, and (4) income; (5) customs, (6) excise, (7) taxes on communications, (8) stamps, (9) death duties.

In any consideration of the best mode of combining these different kinds of charges in order to produce equality of taxation, it should be borne in mind that, as before indicated, the real and the apparent incidence of a tax often differ. Reference has been made below to the conclusions arrived at with regard to the incidence of different kinds of taxes by Prof. Seligman, in whose essay "On the Shifting and Incidence of Taxation" (*American Economic Association*, VII., Nos. 2 and 3, 1892) all the theories previously advanced are examined. In certain cases the views of Bastable (*Public Finance*) are given. But whatever theory be adopted, it is important to observe that in practice the apparent pressure of the burden may be a factor of greater moment than the actual (see *e.g. Report from Select Committee on Town Holdings*, pp. 214, 292, p. xviii.).

1. TAXES ON LAND.—These, which are of very great, if not of the greatest, antiquity as a source of revenue, were originally charged by reference either to the gross produce of the land cultivated, as in ancient Egypt, or to its area, as in Rome and England at one time. The former method was partly adjusted to the productiveness of the soil, but the latter, which is still adopted in some of the British colonies, took no account whatever of the differences in fertility. A moderate approach to equality of charge was indeed sometimes (*e.g.* Humbert, *Essai sur les Finances et la Comptabilité chez les Romains*, note 899) made by arranging the lands in classes taxed at different proportions or rates. Even a classification of this kind is but a rough and ready mode of reaching the true value of the land for taxation purposes—that is, the net yield after the expenses of cultivation have been deducted. To ascertain the net yield, a minute system of valuation is necessary, the valuation being based either, as in France (where it is preceded by CADASTRAL SURVEY), on estimates of produce, prices, and cost of cultivation, or as in England, for the purposes of the INCOME TAX, on the rent at which the land is worth to be let. The tax raised on the valuation may be either "apportioned" or "rated." In the first case, a total fixed sum is collected from each district, the lands being charged at the pound rate necessary to produce it (*e.g.* the English LAND TAX, the French *Impôt Foncier*); in the second, all the lands of the country are charged at a fixed pound rate or percentage (*e.g.* the English income tax, Sch. A). Cohn approves the former system (*Science of Finance*, § 377) as affording the local authorities a support and standard in making correct assessments. It may, however, become inelastic, and practically, as in England, reduce the land tax to a rent-charge. Under such a system, besides, the burden tends to become unequal in different

districts, and this inequality has serious consequences where, as in France, local revenue is raised by additional charges (*centimes additionels*) proportioned to the state tax (Leroy-Beaulieu, *Science des Finances*, 1892, i. p. 321). The amount of revenue now raised by the taxation of land is in most countries considerable, the tax possessing special advantages as a source of income for local purposes (see *Taxation of Lands and Buildings in European Countries, etc.*, P.P. [c. 6209] and 181/91).

If a tax on landed profits or property be a part of a general income or property tax (*e.g.* the English Income Tax, Schedule A), it cannot be shifted and will be borne by the landowner (Seligman, *Incidence*, p. 96). If imposed as an exclusive tax on cultivating owners, it will even then be apt to remain where first put (pp. 97-99). If charged on the tenant-farmer (as the English local rates are), the tax will fall on the landowner in the case of pure competitive rents, and will be divided between landowner and tenant in the case of non-competitive rents (p. 100).

2. TAXES ON HOUSES.—Houses were originally taxed only as included with the land on which they stand—their separate assessment being a development of taxation. In England the HEARTH MONEY or chimney tax of feudal times was succeeded by the window tax, finally replaced in 1851 by the INHABITED HOUSE DUTY. Houses, including in the term shops, factories, and premises generally, invite taxation by the ease with which they can be assessed, and the evidence they afford of the wealth of the occupier. Like land, they are therefore usually made to contribute largely to both imperial and local revenue. Bastable (The Taxation of Ground Rents, *Economic Journal*, iii. 255) argues against the proposal to charge a special tax on the ground rent of houses.

A tax on houses levied according to rental value and assessed on the occupier (as the Inhabited House Duty and local rates are in England) rests in the main ultimately on the occupier (Seligman, *Incidence*, pp. 117-128. See however Bastable's criticism, *Public Finance*, 2nd ed. p. 419; also G. H. Blunden, Distribution of Rates and Taxes, *Journal of Royal Statistical Society*, 1896, p. 644).

3. TAXES ON PROPERTY AND CAPITAL.—Except in the shape of lands and houses, property, including its interest-bearing form, capital, is now rarely made a subject of taxation apart from death duties or a general income tax. The reason is no doubt mainly the practical difficulty of correct assessment, resulting from the varied forms that, in civilised countries, property takes, and the consequent facilities for evasion. The almost invariable history of the general property tax, common in the Middle Ages, is that, originally developed out of a land-tax, it has in the course of time reverted to its primitive form, personalty having gradually slipped out of assessment (see CATASTO). It has therefore, in most countries, been supplanted by separate taxes on land, houses, wages, profits, interest, etc., or in quite modern times by an income-tax (Seligman, *Essays in Taxation*, pp. 23-61). In Switzerland and the United States, however, the property tax is still used for cantonal and state, as opposed to federal, purposes. In France the *impôt sur les valeurs mobilières* is found as a special charge on income derived from capital in shares of companies, the alleged justification being that the holders are idle capitalists whose liability is limited (Leroy-Beaulieu, *Science des Finances*, i. p. 418). In England the small stamp duty recently charged on the share capital of companies is intended rather as a check on excessive nominal capital than a tax on a form of wealth. Prussia and Holland have recently introduced special taxes on property (Seligman, *Essays in Taxation*, 322-335; H. B. Greven, Fiscal Reform in Holland, *Economic Journal*, iii. 534; A. J. Cohen Stuart, Progressive Taxation in Holland, *Economic Journal*, viii. 325, and art. FINANCES, NETHERLANDS). Cohn maintains that it is the office of the property tax to fill up a gap left by the income tax through its inapplicability to property which yields no profits, such as a private picture-gallery. It is only when applied to such property that it is anything more than an income-tax under a different form (*Science of Finance*, §§ 241, 242, 353, 354). A tax on personal property, which is not capital, cannot be shifted. A tax on mortgages or other loanable capital will as a general rule fall on the borrowers (Seligman, *Incidence*, p. 139).

4. TAXES ON INCOME.—Income is now so generally recognised as the normal source of taxation that it is somewhat surprising to find that it has been only after property and other taxes have failed to produce the revenue required that the plan of a direct tax on income has been adopted. Three of the component parts of income—rent, wages, and profits—had indeed early been laid under contribution by means of land taxes, poll taxes, and licences to trade, the last mentioned being now represented in England by the licences required by auctioneers, etc., but the first tax on income as such was the invention of W PITT in 1798. The unpopularity of this tax led to its abolition in 1816, but it was revived in 1842 for purposes of fiscal reform, and now may be assumed to have taken a permanent place in the English system of taxation. (For the practical difficulties in applying the progressive principle to the British Income Tax, see Blunden, "A Progressive Income Tax," *Economic Journal*, v. 527. Burns, "A Graduated Income Tax," *Westminster Review*, Nov. 1896, suggests how the difficulties may be overcome.) In France there is at present no income-tax (see Leroy-Beaulieu in *L'Économiste Français*, 8th February 1896 *et seq.*, for the tax recently proposed), but its place is partially taken by the PATENTE, introduced in 1791, under which trades, occupations, and professions are arranged in certain classes with a view to a rough approximation to a charge on the

amount of profits. In Germany and Austria taxes on industry are found, modelled more or less on the *Patente* (see J. A. Hill, "The Prussian Business Tax," *Quarterly Journal of Economics*, viii. p. 77. This tax is now devoted to local purposes). Austria has in addition a progressive general income tax, based on individual economic ability (R. Sieghart, The Reform of Direct Taxation in Austria, *Economic Journal*, viii. 173). Italy has a heavy income-tax of the English type, but with differentiation of the classes of income, and the Swiss Cantons supplement their property taxes by charges on income, in many cases progressive (see Palgrave, "Progressive Taxation as levied in Switzerland," *Journ. Stat. Soc.*, 1888). In America an income-tax was imposed for five years from 1st January 1895 (Seligman, "The American Income Tax," *Economic Journal*, iv. p. 639), but was subsequently held by the Supreme Court to be unconstitutional.

A general income-tax, being simply a combination of taxes on the separate ingredients of income—rent, interest, profits, and wages,—its incidence as a whole must depend upon the laws applicable to each separate part. Speaking broadly, it cannot be shifted (Seligman, *Incidence*, p. 178). A tax on profits will, if confined to the profits of some particular occupation, in the long run, be shifted to the consumer. If it extends to all profits, it will be borne by the producer (pp. 164-167). A trade-license tax, if fixed and high, will tend to be borne by the producer (p. 169). Given a monopoly in a trade, any fresh tax (whether imposed by way of license or otherwise) will fall on the producer (pp. 160, 162, 168). A special tax on professional men (*e.g.* Solicitor's Certificate Duty), will not be shifted (p. 172). A tax on wages will fall on the workmen, unless as the result of a long and fierce struggle it can be shifted to profits (p. 176).

5. CUSTOMS.—Taxes on commodities, or on consumption, may be levied either as customs at the ports or frontier, as excise with supervision over the producer, or by a state monopoly of production. The tax in all three cases is intended to fall on the consumer, the fundamental principle of a tax on consumption being (Cohn, *Science of Finance*, § 359) "that it accepts the demand of the taxpayer for consumable goods as the standard by which to measure his ability to contribute to the public expenditures." As regards customs (see CUSTOM; CUSTOMS DUTIES; IMPORT DUTIES), England is almost the only country that uses such duties purely for fiscal purposes, and confines them to luxuries. In France, food, raw materials, and manufactures are all subject to import duties, and there is no due relation, such as exists in England, between the customs and the internal taxes. A similar system prevails generally among the other continental nations.

A tax on either absolute necessities or expensive luxuries, whether imposed as an import or an excise duty, will, on the assumption that a corresponding rise in price will not affect demand, be shifted in its entirety to the consumer. A similar tax on comforts and minor luxuries, that is, the general mass of commodities, will be divided between the consumer and the producer in proportions varying with the elasticity of the demand and the ratio of produce to cost (Seligman, *Incidence*, pp. 147-152. See also Bastable, *Public Finance*, pp. 347-351, 509-511).

Export duties, in early times a part of the customs, and popular as a charge (as then believed) on foreigners and a restriction on exportation, are now found only in countries with exceptional products, as, for example, India with opium and rice, Brazil with coffee, the West Indies with sugar (see EXPORTS, DUTIES ON).

In such cases the tax may be partly passed to the foreign consumers. Otherwise, an export duty will be chiefly paid by the country imposing it (Bastable, *Public Finance*, p. 531).

6. EXCISE.—An EXCISE on similar commodities produced within the country should, unless protection rather than revenue is aimed at, or unless (Cohn, *Science of Finance*, §§ 366, 368) there are insuperable practical difficulties, accompany the imposition of customs duties at the ports or frontier. Thus in England each customs duty has its countervailing excise duty if the article taxed is capable of production in this country, except indeed, as is the case with tobacco, its production here is forbidden. On the other hand, if it is intended to raise revenue by the taxation of commodities produced at home, a corresponding customs duty must be charged on the same commodity if imported (see COUNTERVAILING DUTY). In England the internal taxation of commodities is confined to luxuries, and is for imperial purposes only. In France such taxation is applied to necessaries, —*e.g.* salt, food, and fuel—as well as luxuries, and is used for municipal as well as state purposes (see INTERNAL CUSTOMS AND TOLLS; LOCAL FINANCE; OCTROI). A system of internal taxation somewhat similar to the French prevails on the continent generally.

The inclusion of necessaries is due rather to the inadequacy of other sources of revenue than to a determination on abstract grounds to tax the poorer classes. The selection of articles for internal taxation depends mainly on the amount of revenue required to be raised by this means. For administrative reasons the articles should be few in number, and if a large revenue is needed they must be in general use among the people. In order not to infringe the fourth of Adam Smith's maxims, they should be such as will suffer least from excise restrictions on production; and for a like reason raw materials—the duties on which would have to be advanced for a long period—should be excluded from the list. By a state monopoly of production, as existing *e.g.* in France for tobacco, probably the largest revenue may be raised with the smallest amount of restriction. Under such a system an AD VALOREM DUTY becomes practicable (Cohn, *Science of Finance*, § 379). But where, as in the case of alcohol, it is desirable to secure the continual development of new processes, production is best left to private individuals. It must be remembered that in the taxation, whether by monopoly or a duty,

of tobacco, alcohol, and OPIUM, there is a moral ground, real or alleged, the object being not only to raise a revenue but to check the consumption of an article regarded as tending to be injurious (Bastable, "Taxation through Monopoly," *Economic Journal*, i. 307). A moral ground may also partly be alleged as the origin of the ASSESSED TAXES in England, which were chiefly of the nature of sumptuary charges. Such as survive—licences for carriages, men-servants, etc.—are now collected as excise, and paid over for local purposes. Taxes of this kind are an unpopular and decaying form of impost, both here and abroad (see Leroy-Beaulieu, *Science des Finances*, i. ch. ix.). They cannot be shifted. Cohn regards the English system of consumption taxes as one-sided, in that it charges the majority of the population for the benefit of that portion which does not smoke or drink. He, writing in 1889, would wish to see an increase in the scope and number of our taxable articles, and a more adequate equalisation of the burden by further special taxation of the upper classes (*Science of Finance*, § 365).

7. TAXES ON COMMUNICATIONS AND TRANSPORT.—In England the POST OFFICE, a state monopoly, is carried on at a profit, and the surplus, being applied as revenue, is a tax on commercial and private correspondence. A higher charge than is necessary to meet expenses is a check on trade, and an undesirable form of taxation. In other countries the postal service is generally carried on at a loss; and this is the case also with another form of government enterprise—state railways, the receipts from which rarely cover expenses, including interest on debt. The Prussian railways are a conspicuous exception, and the profit arising from them is a tax on transport. The making of such a profit was no part of the original policy of state acquisition, but Cohn ("Railways and Waterways in Germany," *Economic Journal*, iv. p. 543) speaks of the surpluses with approval as a kind of taxation which affects those strata of the population which are most able to pay taxes. As regards railways in private hands, a small amount of revenue is raised in England by the Railway Passenger Duty, a special tax on part of the gross receipts from passengers. The present law is founded on the report of the select committee of the House of Commons appointed in 1876, which however recommended the repeal of the duty whenever the state of the public revenue would permit (pp. 312, 376). In France a considerable sum is raised by a tax on goods and passengers carried on the railways, and in America there are state taxes on either the gross or net earnings of the lines. In so far as these taxes fall on goods and travellers on business (see Bastable, *Public Finance*, pp. 536-7), they act in restraint of trade, and are undesirable.

8. STAMPS.—This term denotes merely the mode in which certain taxes are collected. When charged in respect of law proceedings and juridical acts, STAMP DUTIES, so far as they exceed the level of fees for services rendered, are open to objection, the administration of justice being a general interest affecting rich and poor, litigants and non-litigants, alike. In England and France a small amount only of revenue is raised in this manner, but in Germany the fees contain a larger tax element. As charges on commercial transactions and transfers of property, stamp duties are, however, largely used in England, France, and Italy. They are easy to collect, and although tending to check trade and production, are, when charged at low rates as in England, open to little practical objection as a subsidiary source of revenue.

According to Bastable (*Public Finance*, pp. 546-7), stamp duties on commercial instruments, such as bills and receipts, may be regarded as falling on business gains, whilst those on transfers of land and other property are probably divided between buyer and seller.

9. DEATH DUTIES. SUCCESSION DUTIES.—Duties on the transfer of property from the dead to the living, though theoretically objectionable as tending to fall on capital, and thus to retard the growth of wealth, are almost universally regarded as an essential constituent of a well-arranged system of finance. In practice, so long as small estates passing to widows and children are lightly charged, and adequate measures are taken to prevent evasion, perhaps the only limit to the rate of duty is the danger of diminished productiveness through either genuine gifts *inter vivos*, or, eventually, the stoppage of accumulation. Seligman, discussing the various arguments for an inheritance tax, as death duties are called in America, advocates a charge of this kind as a supplement to an income or general property tax, in order to reach the real faculty or ability of the individual, which has been increased by an accidental or fortuitous receipt. He also regards the tax as a convenient method of applying the principle of differentiation in the taxation of income derived from property and labour (*Essays in Taxation*, 121-135. See also Max West, *The Inheritance Tax*). The principle of graduation according to the amount of property left by the deceased has now been adopted in England, more especially since the introduction of the estate duty (Finance Act, 1894), (*38th Report of Commissioners of Inland Revenue*, 19-28; Seligman, *Essays in Taxation*, 307-311; Bastable, *Public Finance*, 556-560). A tax on inheritances or bequests cannot be shifted.

[See books mentioned in the following: M'Culloch, *Literature of Political Economy* (1845), pp. 318-349.—Ely, *Taxation in American States and Cities* (1888), pp. 94-101.—Cohn, *Science of Finance* (1889), American translation, 1895, §§ 8-19.—Bastable, *Public Finance* (1892).—Cossa, *Introduction to study of Political Economy* (1893).—Seligman, *Essays in Taxation* (1895),

pp. 358-398; also, for American taxes, pp. 62, 263 and 422.—*The Statesman's Year Book* (lists of official and non-official publications)]. F. A.

[Besides arts mentioned in the text, see ASSESSMENT; COST OF COLLECTION OF TAXES; DEATH DUTIES; DÉCIMES; DENIER; DIFFUSION THEORY OF TAXATION; DÎME ROYAL; DIRECT TAXATION; DISCRIMINATING DUTIES; EXCISE SCHEME; FARMING OF TAXES; FARMING TAXES, Principle of; FIRST FRUITS AND TENTHS; FOOD, Taxes on; GABELLE; INDIRECT TAXATION; MACINATO; NEW CUSTOMS; NEW IMPOST; NEW SUBSIDY; PAPER, TAXES ON; PAULETTE; QUOTITÉ; SALT, TAXES ON.]

TAXATION, EQUALITY OF. See TAXATION.

TAXATION, GRINDING. See MACINATO.

TAXATION, INCIDENCE OF. See TAXATION.

TAXATION, INDIRECT. See INDIRECT TAXATION.

TAXATION, MAXIMS OF. See TAXATION.

TAXES. See TAXATION.

TAXES, COST OF COLLECTION OF. See COST OF COLLECTION OF TAXES.

TAYLORS, MERCHANT. The tailors were among the most thriving artisans of mediæval London, and their organisation as a craft probably dates from the middle of the 13th century. In 1327 the tailors and linen-armourers represented to the king that they had been accustomed "to hold their gild once every year to rule their mistery and order the state of their servants," and prayed for the confirmation of the same. This was granted by a charter, which gave them also the control over the admission of tailors to the freedom of the city. The number of members would seem to have then been twenty-four. During the same period there existed a religious fraternity of St. John Baptist of tailors in the city of London, which was probably at first formally distinct from the organisation of the craft as such. But, if so, the two had coalesced by 1390, when Richard II. confirmed the privileges of "the gild and fraternity of tailors and linen armourers" "in honour of St. John the Baptist," and empowered them to elect annually, from among themselves, a master and four wardens.

From that time onward their history resembles, in its main features, that of the other LIVERY COMPANIES of London (see also CORPORATIONS OF ARTS AND TRADES, GILDS, LIVERYMEN, and MERCERS). By a charter of 1408 the fraternity was formally incorporated; by one of 1439 it was authorised to make search concerning the mistery within the city and suburbs. Henry VII., by his charter of 1502, of his "special grace" "transferred and changed the gild and fraternity into the name of the gild of *merchant* taylors of the fraternity of St. John the Baptist"; on the ground that "the men of the mistery, . . . from time whereof the memory of man is not to the contrary, do use, occupy, and exercise in all quarters and kingdoms of the world, all and every kind of merchandises, to the renown, honour, and benefit of our kingdom." During the 15th century a divergence of interests between masters and journeymen made itself felt, leading to the formation of a fraternity of "yeomen," which gave the company some trouble (see JOURNEYMEN'S SOCIETIES). The company also began to be enriched by the bequests of deceased members, and to be made the trustee of lands devised for benevolent and religious purposes. In 1547 it surrendered to the crown, in accordance with the statute to that effect, its religious endowments; redeeming charges amounting to about £100 by selling lands which fetched £2000, and by paying that sum to the crown. In 1561 the company established the school in London which it has since maintained, and which has remained in close association with St. John's College, Oxford, founded a few years earlier by Sir Thomas White, merchant taylor and lord mayor. Between 1550 and 1571 the company vigorously defended, especially against the cloth-workers and haberdashers, the alleged right of its members to exercise any occupation, and succeeded in preventing any prohibitory legislation. Their success must have hastened the decay of the gild system in London; henceforth, though the companies survived as social bodies, they gradually dropped their connection with the occupations from which they had arisen. The internal constitutional history of the Merchant Taylors' Company is obscure. But it would seem probable that the subordinate organisation known as the Bachelors' Company was composed in the 17th century largely of working tailors, and that the refusal of the court of assistants in 1691 to reappoint officers for the bachelors may be regarded as marking a distinct withdrawal from interest in the tailoring occupation; though the formal testing of cloth measures in Bartholomew Fair by officers of the company was kept up until the abolition of the fair in 1854. In 1837 it was stated that "the greatest number of the company were members of the stock exchange or corn factors." In 1882 the number of liverymen was 226, the corporate income £31,243, and the trust income £12,068.

In all considerable English towns there were similar, though less flourishing, fraternities of tailors in honour of St. John the Baptist. That in Bristol possessed ordinances dating from 1392, and began to call itself "the company of *merchant* taylors" in the latter part of the reign of Elizabeth. It became extinct with the death of the last surviving member in 1824.

The tailors were, in many towns, among the most powerful of the crafts; for their struggles with the municipality of Exeter see *English Gilds* (Early English Text Soc.), and Mrs. J. R. Green, *Town Life in the 15th Century*, vol. ii. ch. vii.

Their social importance may be explained, in the main, by the elaborateness and costliness of attire among the upper and middle classes in the later middle ages. But it was doubtless increased in some places, such as London, by the share which their occupation led them to take in more or less wholesale trade—a subject which awaits investigation. Some light may perhaps be cast upon the position of affairs in London by that in certain continental towns. In Stralsund the company of *Wandschneider*, explained as cloth dealers, belonged to the *Kaufmannstand*, while the *Schneider* belonged to the *Gewerkstand*. In Lübeck the *Gewandschneider* were grouped with the merchants travelling to foreign parts, and reckoned among the *bürgerliche Collegien*, and yet the *Schneider*, another body, was second among the four great *Handwerksämtern*, to which the other seventy-two crafts were subordinate.—V. Maurer, *Städteverfassung*, ii. §§ 337, 354.

[W. Herbert, *Livery Companies* (1834), vol. ii.; now superseded by C. M. Clode, *Memorials of the Guild of Merchant Tailors* (1875), and *Early History of the Guild of Merchant Taylors* (1888), 2 vols.—both works printed by the company for private circulation. For the recent history of the company the *Report* of the royal commission on the livery companies (1884) must be consulted, or the summary in W. Carew Hazlitt, *The Livery Companies of the City of London* (1892). For Bristol, Francis F. Fox, *Merchant Taylors of Bristol* (1880), printed for private circulation.] W. J. A.

TEINDS (SCOTLAND), *i.e.* TITHES. In early times it came to be held as part of the common law of Scotland that, by reason of divine law, a tenth part of the fruits of the land of the laity ought to be paid to the clergy, and the latter were accustomed to claim and receive this. Substantially the bulk of the tithes or teinds in Scotland were those imposed upon cultivated land, and even these were practically, if not wholly, imposed only upon corn. These constituted the parson's tithes, the rectorial teinds, or *decimæ garbales;* and as the obligation to pay one-tenth of the corn to the parson ran along with the right to retain the remaining nine-tenths, the parson's right to his one-tenth could never lapse from non-user. At the same time there were local customs according to which petty tithes, or "vicarage teinds," were levied, ostensibly for the maintenance of the parson or rector's substitute or vicar. If the vicar were appointed by the patron of the church, the representative of the original founder of the church, these petty tithes were paid directly to the vicar; but if not, they were paid to the parson himself, to supply him with means to pay his own vicar. The history of the right to teinds is a record of confusion; and during the centuries preceding the Reformation we find that by one means and another the religious houses ousted the parsons and vicars to a large extent, and that the right to claim and receive teinds became vested in them in many places; and more, that many laymen contrived to become possessed of them at the expense of the religious houses. This *latter* process was greatly accelerated immediately before the Reformation, when it became almost a general practice for the religious orders to grant away their own lands, which up to that time had remained exempt from tithes, "*cum decimis inclusis et nunquam antea separatis*," as the phrase went; and a title to that effect is still recognised as exempting the land to which it applies from liability to pay teind. When Scotland emerged from the confusion of the Reformation, and the accompanying wasteful grants to needy nobles and courtiers of the period, it was found that the parish clergy had practically ceased to have any interest in the teinds, the right to claim and receive which had come to be vested either in the crown or in the titulars of teinds—that is, persons entitled to the teinds in virtue of crown grants of teinds or of church lands—or in the patrons who represented the original founders of the churches, or in those who had acquired church lands from churchmen. These were practically all laymen, and their exercise of the right was found to be most oppressive; for example, they would refuse to come and gather their tenth sheaves until some special bargain was driven, for until they did so the remainder of the crop could not be taken off the fields. On the other hand, the parish clergy had no satisfactory means of support, and the confusion became so great that in 1628 Charles I. induced all parties concerned to submit the whole arrangements to his arbitration and to revision by him, the alternative apparently being that the crown would assert its own rights as against the existing holders of the teinds. King Charles issued an award which was the basis of the present system. According to this, instead of one-tenth of the fruits of the land, the teinds were to consist of one-fifth of the rent or annual value of the land. Then there was a right given to have this rent valued once for all, so as to fix in money the annual value of the teinds. The great majority of the lands in Scotland have had their rents valued for this purpose very long ago, so that the teinds have in modern currency very small values, and do not approach one-fifth part of the rents of the present day. But there are some instances, come upon from time to time, in which no such valuation has ever taken place; and in such cases the teind amounts to one-fifth the actual rent at the present day, with this exception, however, that where the land in question has been covered by the houses of a town, it is taken at a full agricultural value; in Edinburgh £4 per acre, so that the corresponding teind is 16s. per acre. Next we have to mention a peculiarity of the existing system, which is, that whatever may be the value of the teinds within a parish, it is only in some cases that the minister of the parish

receives the whole of them. The theoretical rule would be that he never does so, because the teinds are held as property for their own advantage by the heritors—that is, by the proprietors of land and houses liable in payment of public burdens—and the heritors do not pay the teinds as such to the clergy, but are at the same time bound to make a suitable provision out of the teinds for their support. If the whole of the teinds happen to be required for this purpose, the whole will be absorbed in meeting this obligation, but not otherwise; and if this be the case, the teinds are said to be exhausted. When a minister thinks his actual stipend is too small he may raise an "action of augmentation," an action to get his stipend augmented or increased. This action he brings against the heritors before the teind court. He pleads the increase of his parish in population, the increased cost of living, etc. etc.; the heritors apply themselves to prove that he can live quite comfortably on his existing stipend, or perhaps that there are no unexhausted teinds left in the parish. Assume that the minister satisfies the court that he ought to have an increase, and that there are unexhausted teinds in the parish from which an increase may be granted, it is awarded to him in terms of so much oats, so much barley, etc., the conversion of which into terms of current coin is a mysterious arithmetical operation, dependent for its result, year by year, upon the verdict of a jury summoned yearly for this purpose by the sheriff of each particular county. This old-world method of paying the minister nominally in grain and really in money, the amount of which varies with the current prices of grain, has had the effect of impoverishing the Scottish clergy, never too sumptuously provided for, considerably during recent years; but the minimum money stipend is in current practice taken as £150. If an augmentation be granted as just explained, the next step is a "locality" that is an allocation or apportionment of the burden among the heritors concerned. This is a proceeding which has seldom failed to set neighbours by the ears more or less; for unless there have been a previous "locality" in the same parish, the records of which can be referred to, it involves raking up old titles to prove exemption or to prove old valuations, or to solve questions of alleged postponed liability, while the interest of a heritor's fellow-heritors is to show that he cannot produce any old valuation, and is therefore liable to contribute on the footing that his teind is one-fifth of the actual present-day rent or annual value of his property. At the same time there are certain rules which it is not necessary here to consider as to the order in which the teinds will be applied to the purpose of giving the minister a suitable stipend; for example, the first to be encroached upon will be any teind belonging to the parish and found in the hands of the crown, not having been ever granted to any layman, should any such be discovered; and the last to be touched will be any teind already appropriated to one of the four Scottish universities.

[Connell on *Teinds.*] A. D.

The present value of parochial teinds is about £240,000 yearly, and there is an estimated value of £133,000 "unexhausted teind" available for future augmentations of stipend; 880 parishes participate in the distribution. There is a bill now before parliament for compulsory valuation of all unexhausted teinds, etc., etc., so as to put an end to the confusion, actual or potential, at present existing.

TELEGRAPHIC TRANSFERS. Since the introduction of transatlantic cables a new mode of effecting international payments has come into use, the operation of which appears from the following illustration:—

A in New York purchases from *B*, a London stockbroker, shares to the value of £10,000. They are purchased on the 28th of the month for the 30th, which is the next settling day; and as *B* has resold the shares for delivery in New York on the 10th of the next month, they cannot be carried over, and *B* must be in possession of the £10,000 on the 30th. *A* therefore purchases from *C*, a banker in New York, a telegraphic transfer to *B* for £10,000, upon which *C* immediately telegraphs to his correspondent in London, *D*, to pay *A* £10,000. *C* must of course reimburse *D*, and this may be done in various ways; if the exchange in New York is so much in favour of London that it pays to send gold, he may send gold; if this is not the case he may send stocks or shares for sale, or employ other means of remittance; but the most usual mode of covering cable transfers is the remittance of long-dated bills of exchange, and the price for telegraphic transfer depends, therefore, on the price of such bills. In fixing the former price the following circumstances have to be taken into consideration:—(1) the loss of interest while the bill is travelling; (2) the discount on the bill calculated from its date of arrival in London; the actual rate will be taken as the basis of the calculation, but a small percentage will be added by way of insurance premium in view of a possible rise in the rate; (3) the bill stamp; (4) a *del credere* commission for *C*, who runs the risk of the bills he purchases; (5) a reasonable profit for *C* and *D*.

Therefore, if the price of sixty days sight bills on London in New York is $485 (which means that for $485 a bill for £100 can be obtained), the price of cable transfers on London in New York is calculated in the following manner:—

	$	cents.
Cost of bill	485	0
Interest 8 days at 4 per cent	0	43
Discount 63 days at 2 per cent (the market rate being 1⅞, and ⅛ being added so as to cover the risk of a rise)	1	70
Bill stamp	0	25
Del credere commission for C, $\frac{1}{10}$ per cent.	0	49
Profit for *C* and *D*, ¼ per cent.	0	97
A cable payment of £100 would therefore approximately cost	488	84

The business of selling telegraphic transfers cannot be carried out properly, unless elaborate arrangements of a permanent kind are made between the parties ordering them and the parties by whom they are effected. These arrangements include the preparation of telegraphic codes with secret keys—so as to avoid the risk of acting on fraudulent telegraphic orders—constant telegraphic communication as to the standing of the mercantile firms on whom the foreign house usually purchases bills as to rates of discount and their tendency, etc., and involve so much labour and expense that the transactions for which they are required cannot be remunerative unless they are undertaken on a somewhat extensive scale. As the amounts paid must be advanced whilst the bills sent by way of cover are travelling, it follows that only such companies and firms as are possessed of considerable liquid means can undertake to effect cable payments. Such payments cannot, therefore, be obtained to an unlimited amount.

On the other hand, it will be seen from the calculation given above, that it must generally be cheaper for a person having to make remittances to distant countries to buy bills instead of telegraphic transfers, even after making allowances for discount, bill stamps, etc. These transfers are, therefore, not used as a means of remittance except in connection with certain special classes of business transactions. Among these, stock exchange arbitrage dealings, which necessitate very quick payments, are the most prominent, but there may be other circumstances under which it is profitable to incur the additional cost involved by the employment of this mode of remitting money to distant places. If, for instance, a merchant in Hong-Kong, from which place a letter to London takes about six weeks, has to make a certain payment in London at a certain date, it may be of the greatest benefit to him to avail himself of the six weeks' additional space of time, which he gains, by employing the cable instead of the steamboat as the carrier of his remittance; this will occur if money, during the intervening six weeks, can be employed to great advantage, or if he has reason to believe that the rate of exchange will be more favourable later on. Where large amounts have to be remitted, the circumstance that the purchase of cable transfers involves less risk than the purchase of bills, may also be a motive influencing the parties concerned.

In actual practice telegraphic transfers are used in few countries only. The largest volume of transactions occurs in transfers purchased in New York and effected in London in connection with arbitrage dealings in American stock-exchange securities, but cable payments to be effected in London are also purchased in some eastern places—Bombay, Calcutta, etc. In the latter case they are probably purchased, as a general rule, with the intention of deferring the fixing of the rate of exchange to the exact moment when the payment is to be effected. The drafts on India which the Indian government negotiates in London are also sometimes issued in the form of telegraphic transfers. E. A.

TELEGRAPHS. See the POST OFFICE.

TELLERS OF THE EXCHEQUER. These were officials belonging to the lower chamber or exchequer of receipt (*see* EXCHEQUER, EARLY HISTORY OF) appointed to count all money paid in. Four was apparently the usual number, although from Pipe Roll, 1 Richard I., it seems that ten tellers accompanied the treasurer and chamberlains to Salisbury for the collection of a tenth (Maddox, T., *History of Exchequer*, ii. 303). Originally in a subordinate position, the tellers became officials of some dignity in Tudor and Stuart times, when their work was done by deputies (Hall, *Antiquities of the Exchequer*, p. 81). The tellers' office undertook both the receipt and the payment of money. A note of all money paid in was entered in a book; of this a transcript on parchment called a bill or teller's bill was at once made and thrown down a pipe into the tally court, where a TALLY (*q.v.*) was struck indicating the amount paid in for which the teller was responsible (Thomas, F. S., *Ancient Exchequer of England*, pp. 26, 134). The clerk of the pells also recorded on the pell of receipt every teller's bill; the earliest extant is dated 4 Hen. III. (*ibid.* 92). Upon disuse of tallies a memorandum of the teller's bill known as "the bill of the day" was drawn up. The tellers also issued payments upon warrant (*ibid.* 134). One key of each teller's chest was kept by the clerk of the pells, who charged the tellers daily with the amount received, and deposited it in the chests. The tellers were also under the control of the auditor of the exchequer, who examined their chests at his discretion (*ibid.* 130). With the abolition of the receipt department of the exchequer by 4 & 5 Will. IV. c. 15, the office ceased to exist in 1834.

[Madox, T., *History and Antiquities of the Exchequer* (1769).—Hall, H., *Antiquities and Curiosities of the Exchequer* (1891), and "Introduction" *in Pipe Rolls Society's Publications*, iii. (1884).—Thomas, F. S., *The Ancient Exchequer of England* (1848).—*Dialogus de Scaccario* in Stubbs's *Select Charters illustrative of English History.*] E. A. M.

TEMPLARS, THE KNIGHTS. The leading facts of the history of this military order are well known: at the time of the first crusade they were founded to defend pilgrims to the Holy Land against the infidel; they enjoyed exemptions, granted by special papal bulls, from ordinary ecclesiastical jurisdictions; they acquired immense wealth, became unpopular both in England and in France, and, in the latter country, were suppressed by an unscrupulous stroke of authority of King Philip the Fair, who condemned the grand master Molay and other dignitaries to death, and confiscated, in 1307, a large part of the wealth of the order. Though in England such extreme proceedings were not taken, Edward I., in 1295, carried away by force from the Temple a sum of £10,000, and Edward II., shortly after his accession, seized £50,000 in silver, besides gold and jewels, which had been deposited in their treasury (Cunningham, *Growth of English Industry*, p. 254).

During almost the whole of the 13th century the house of the Templars in Paris acted as bankers to the kings of France, the royal princes, noblemen, rich burghers, and merchants. Its dealings in this capacity were for the first time submitted to a searching and exhaustive analysis by M. Léopold Delisle in his *Mémoire sur les Opérations financières des Templiers* (*Mémoires de l'Académie des Inscriptions et Belles Lettres*, vol. 33, 1889), of which the following is a summary.

Owing to the sanctity ascribed to their precincts, monasteries were, during the middle ages, favourite places for deposits of the precious metals, jewels, chattels, etc., but the *Commanderies* of the Temple distinctly acted as bankers by (1) being chosen as deposits for disputed funds, (2) granting loans and acting as securities for the fulfilment of contracts, (3) transmitting monies and paying them at a distance, and (4) accepting and effecting payments for customers who had a running account with them. All these operations have been identified by M. Delisle and are authenticated by original documents printed in his appendix. Deposits in cash were sometimes locked up in special *hutches* marked with the names of the owners, in which case they could not be touched without the express consent of the depositors, but generally the Order was allowed to make use of the deposits at its discretion, but of course under its responsibility.

Fragments of one of the books kept in the Temple at Paris for the daily receipts of money, and printed in the appendix (pp. 162-223), afford an insight into their daily transactions, and show how the payments effected were either put to the credit of the owner of an account (*super talem*) or carried over to another account such as *in parvo libro novo*, *in magno libro*, etc. For each day the name of the brother in charge heads the entry; and at night the monies received are as a rule transferred to the central office (*Solvit in turre*). About 800 different names are entered in the relatively short space of fifteen months (12th March 1295 to 4th July 1296); the reference to about ten distinct other registers, such as *in magno libro ad debemus*, etc., show that the Templars understood the advantages of systematic book-keeping.

From 1202, the Temple became the central treasury of the kings of France, and under Lewis IX. the royal auditors even held their meetings in the Temple; it also paid the pensions granted by the king, the amounts of which were transferable. From the balance-sheets, which have been preserved (1286-1295), it appears that the king was sometimes debtor and at other times creditor. Towards the very end of the 13th century Philip the Fair established a separate royal Treasury in the Louvre and kept the latter entirely under his own management. The accounts of the Temple with the king at the time of its suppression appear to have been destroyed, probably from sinister motives.

In the defective state of records it is impossible distinctly to state what remuneration the Templars secured for their financial services, beyond the extensive and "perpetual" fiscal privileges granted by the kings, and some special and commercial exemptions, which they temporarily enjoyed. In other words, did they actually charge interest on their loans? That they paid such (*pro custibus solutis*) on account of the king to merchants and bankers is demonstrable, but beyond this nothing can be ascertained. Still, there is evidence that they acted on the principle admitted by AQUINAS that a man who lends money may without sin contract for a compensation in case of delay of repayment (see LOAN, CANONIST DEFINITION OF); thus in the collection of old French judicial sentences known under the name of *Olim*, a judgment occurs concerning a loan of £3000 made by the Templars with the stipulation that in case of non-payment at the prescribed term, they would be entitled to a fine of another £3000 (*Olim*, éd. Beugnot, vol. ii. p. 128). M. Delisle mentions this transaction, but perhaps does not lay sufficient stress on its bearing.

[See also Addison, *History of the Knights Templars*, 1842.—H. de Curzon, *La Maison du Temple de Paris*, 1888.—Michelet has edited the documents concerning their trial in the *Monuments Inédits de l'Histoire de France*, 2 vols. 1841.]

E. CA.

TEMPLE, SIR WILLIAM (1628-99), diplomatist and essayist, was the only English thinker of that epoch who saw clearly through "the state of nature" and the "social contract," and who traced law and trade-morals to custom, the state to the family, and modifications of the state to conquest and treaty (*Essay upon the Origin and Nature of Government* (1671?), *Works*, ed. 1814, vol. i. p. 1). These anticipations of Savigny and Maine are almost uncanny; the more so because his *Observations upon the United Provinces* (1672) (*Works*, vol. i. pp. 163-185), and *Essay upon the present State of Ireland* (1667) (cited, by T. P. Courtenay, *Memoirs*, vol. i. p. 380), and *Advancement of Trade in Ireland* (1673) (*Works*, vol. iii. p. 1) exactly reflect contemporary views about wealth and poverty under the respective images of Holland and Ireland. He starts, like FORTREY, with a dense population, which raises rents and the price of necessaries and so (1) sets money free for trade, (2) and creates the economic sense which with MISSELDEN and HOBBES he usually calls "frugality and industry," but sometimes with the older moralists "avarice" (*Works*, vol. i. p. 141). He seems to think that wealth is the necessary result of these two data; and that the economic sense—on which he lays chief stress—is developed by physical and political conditions. Like Fortrey (1663) and the author of *Britannia Languens* (1680), and unlike the author of *England's Greatest Happiness* (1677), and BARBON, and MANDEVILLE, he condemns imported consumable luxuries partly with the usual balance-of-trade arguments, partly because they sap the economic sense; and unlike Fortrey he condemns home-made luxuries on the latter ground (vol. i. p. 177; vol. iii. p. 8). Like R. COKE (1670), he wants to stamp out idleness and foster new manufactures by means of workhouses. He is keenly alive to the value of "mutual trust" which good government, banks, traders' corporations authorised to search and stamp exports (contrast MILLES and W. S.), land registries, and low customs will easily effect. Like all mercantilists he is nationalist to the core, and though he wishes the good of Ireland, he wishes that of England more. He condemns the "raising" of the chief Irish coin as likely to drain away other coins, and the cattle-trade prohibition (1666) as not likely to benefit Ireland, nor, which is more important, to raise English rents; and he wants to encourage horse-breeding and linen manufactures in Ireland but to discourage cloth manufactures, which must be set apart for England. His panacea is more population (cp. PETTY, *Treatise of Taxes* (1662)); therefore let the state tax bachelors (cp. Louis XIV.'s edict of 1666, the proposals of WALES and MASSIE) and invite foreigners (cp. VIOLET); these measures, along with state control and regulation (he seems to forget markets), will raise up trade out of nothing—as was the case in Holland—then just past its zenith—and will be the case in Ireland. His belief that external necessity inevitably moulds character, and that character is all that is wanted to enrich a nation, is the main feature which distinguishes him from all those who since Sir

W. RALEGH turned their eyes to Holland, much as German economists now turn their eyes to England. His theory of population merely flowed from these premises.

[Sir W. Temple is largely quoted and approved in *Britannia Languens* printed in *Select Collection of Early English Tracts on Commerce* (1856); and in *Enquiry how far it may be expedient . . . to permit the importation of Irish Cattle* (1743). And see F. I. Herriott, *Sir W. Temple on the Origin and Nature of Government* (1891); *K.-sächsische Ges. der Wiss.*, Abh. Bd. II.; W. Roscher, *Zur Geschichte der eng. Volkswirthschaftslehre*, p. 125; Hume, *Essays*, Pt. ii. Essay viii.] J. D. R.

TEMPLE, WILLIAM, a clothier of Trowbridge (18th century), "who has immense erudition in his own way" (Lord Woodhouselee's *Memoirs of the Hon. H. Home of Kames*, iii. 161), published his *Vindication of Commerce and the Arts*, 1758, under the pseudonym of B. I., M.D. (or I. B., M.D., on the title-page of M'Culloch's edition). It was written to refute the conclusions of a university prize essay by W. BELL, who had asserted agriculture to be the main cause of populousness, and had contemned commerce and the arts as useless and pernicious. Temple, on his side, attributed "populosity" to more various causes—to good laws, religious toleration, encouragement of foreign commerce and immigration, climate, the employment of foreign mercenary soldiers; and he denied that agricultural pursuits and rural simplicity could give a strong enough spur to industry to increase population or to produce wealth beyond the accustomed necessaries and comforts of the workers. If these could be produced by three days' labour, labourers would only work for three days. A great plenty and a great industry must be incompatible, chiefly for want of the spur of necessity, but also from the temptation to drink. "The only way to keep a populace temperate is to deprive them of the means of debauchery by paying them low wages." To strike an average between times of plenty and of scarcity, Temple put forward the curious suggestion that in the former a tax should be laid on necessaries to form a sort of state provident fund in times of dearth, sickness, or other distress, payments per head being recommended to encourage population.

Commerce and the arts were then treated, in opposition to the views of the essay he was attacking, as productive not of penury but of plenty and prosperity.

[Cunningham, *Growth of English Industry and Commerce, Modern Times*, pp. 560 n. and 689; another pamphlet, *Essay on Trade and Commerce*, and a refutation of part of Smith's *Chronicon Rusticum*, are here ascribed to the same author.] E. G. P.

TENANT-AT-WILL. A tenancy-at-will means a tenancy which either the landlord or the tenant may terminate at any moment by the mere expression of a wish to that effect. Such a tenancy may result either from express agreement (no particular form being required by law) or it may arise by implication, as where a tenant for years continues in possession after his lease has expired. As tenancy-at-will is unfavourable to agriculture, the common law always regarded it with disfavour, and the courts would lay hold of any indication of a wish to create a more permanent tenure (*e.g.* the stipulation of a yearly rent) to turn a tenancy-at-will into a tenancy from year to year.

[Williams, *Principles of the Law of Real Property.*] F. C. M.

TENANT RIGHT. Tenant right hardly admits of accurate definition. It may be described as a beneficial interest in the land which remains in the tenant when his lease has expired. It may originate in a claim to compensation for improvements which the tenant has made, and which are not exhausted at that date. Or it may originate in a claim not to be evicted at that date so long as he pays his former rent, or at least a rent not determined merely by the discretion of the landlord. For if the landlord may ask what rent he pleases, the right of the tenant to remain on condition of paying rent would be nugatory. Or the tenant right may be founded on both of the above claims by the tenant. Tenant right may be either customary or legal. Various customs securing compensation for improvements to the outgoing tenant have prevailed in different parts of England. The Agricultural Holdings Act of 1883 has created a statutory right to such compensation. In Ulster and elsewhere in Ireland, custom imposed a check upon the arbitrary raising of rent when the tenant's term had expired, and thus gave rise to the Ulster tenant right. The Irish Land Acts (see LAND LEGISLATION, IRISH), giving fixity of tenure at judicial rents, have created a statutory tenant right available all over Ireland. The tenant who wishes to quit his farm may sell this tenant right, which usually fetches a very considerable sum.

[See articles AGRICULTURAL HOLDINGS ACTS and LAND LEGISLATION, IRISH, and the authorities therein referred to.] F. C. M.

TENEMENT. The strict meaning of tenement is anything that can be the subject of tenure at common law, *i.e.* land, seignories, peerages, advowsons, and probably chief rents. But in practice the word has been extended to cover all hereditaments that savour of land or realty, *i.e.* any estate or interest in land that on the death of the owner intestate would devolve on the heir. A tenement is the only property that can be entailed under the statute *De Donis*. Personal property, therefore, cannot be entailed, as it does not come under the definition of a tenement.

[The meaning of the term is discussed in the *Law Quarterly Review*, vol. v. p. 526, and vol. vi. p. 69. See also Challis on *Real Property*, London, 1892]. J. E. C. M.

TENTHS. See FIRST FRUITS AND TENTHS.

TENURE OF PROPERTY. See LAND TENURES.

TERCIAS REALES, two-ninths of the

ecclesiastical tithes which had been granted to the kings of Castile by the Popes Alexander II. and Urban II., to assist them in their wars against the Moors. These grants were made perpetual by the Popes Innocent VIII. and Alexander VI. in 1487, 1493, and 1494. In course of time a great part of this revenue was alienated; yet, as late as 1800, Canga Argüelles (*Diccionario de la Hacienda*) computes that they still yielded 15,000,000 of reales (say £150,000) to the Treasury. E. Ca.

TERCIO DIEZMO (third tithe). When Catalonia and the kingdom of Valencia were wrested from the Moors, the Christian conquerors became possessed of the tithes which the Moors had levied on the produce of land. King James I. of Aragon granted two-thirds of these tithes to ecclesiastical purposes, but reserved one-third under this name to the state. After having been a plentiful source of revenue, these *tercios diezmos* were almost completely lost through donations, usurpations, and alienations in times of pressing financial wants.

[See Canga Argüelles, *Diccionario de Hacienda*, London, 1826.] E. Ca.

TERM OF YEARS. A person holding land on lease is said to be the owner of a term of years, or of an "estate for years."

See ESTATE; LEASE. E. S.

TERMINABLE ANNUITIES. There is scarcely any subject in state finance on which so many misconceptions are held as this.

It is frequently alleged (1) that it would be practicable, as well as advantageous, to raise large loans by the grant of equated or fixed annuities of an unvarying amount per annum for a long or short term of years as the case may suggest, in preference to the usual plan of perpetual annuities with or without power of redemption by repayment of the capital at par at specified future dates; (2) that it would be possible to establish a stock exchange market for terminable annuities, and to enable sales and purchases and transfers to be registered of any subdivided or fractional parts, as is done with imperial government or local government stocks; and was suggested so recently as in 1895, by a bill promoted by the London county council to consolidate and amend the law relating to the raising and provision of money, for its expenditure, and to issue terminable annuities to be called Metropolitan Annuities.

It was intended by the bill referred to, that the dividend warrants for payment of such terminable annuities should either state what portion represented principal and what portion interest, or that separate warrants should be issued for the portion of each instalment which represents interest, so as to save the holders of the security from income-tax on capital. The bill was not proceeded with, on the election of a new council, so far as regards this provision in their bill of 1896; so that income-tax is, as hitherto, deducted from the whole of the dividends on terminable annuities that may be granted by local authorities, in the same way as it is deducted from the whole of similar annuities granted by the government or local authorities, unless the subdivision or separation of the instalments of sinking fund to repay principal, and of the portion to meet interest on the periodically diminishing indebtedness to the original lenders, is explicitly set forth in a deed executed by the borrowers, at the outset of any special transactions and with the express view of excluding all instalments of principal from the incidence of the income-tax. But loans secured by deeds such as this are not negotiable or stock-exchange securities, like those which the county council bill of 1895 sought to introduce. It is an error, both scientific and practical, to suppose that such a thing could ever be brought about. Both the sum repaid, and the interest on the sum remaining unpaid, vary, at each instalment, in every terminable annuity of a fixed or equated amount, for each year of the term for which it is granted. It is a geometric proportion (1) of increase of principal or sinking fund at each instalment; and (2) of corresponding decrease of interest consentaneously. How loans of greater or less magnitude, and with such perpetually shifting conditions, could be consolidated so as to become negotiable securities, or stock-exchange values, and to be transferable in fractional sums, would be quite impossible for the most ingenious of financiers to arrange. The British government, since 1855, have, with the solitary exception of the Red Sea telegraph loan, then carried through by a temporary annuity of £36,000, expiring 1908, which is quoted as a stock exchange security, not been able to issue any terminable annuities publicly dealt with, or not subject to income tax on the full amount of each of the instalments. This applies to the whole of the terminable annuities in existence as in 1897, and the capitalised value of which at that date was about 50 millions, the possession of which (with the exception of the life annuities) is held by the government itself, as against its savings banks and other departmental liabilities, the annual charge for interest and sinking fund being £7,149,743. In the same way, although local authorities in England and Wales and London and county councils, had, in 1897, an indebtedness of about 272 millions, which included many millions borrowed from insurance companies in exchange for terminable annuities, either of equated equal amounts for terms of years, or of amounts diminishing by instalments repayable at fixed periods, none of these are in any sense of the word negotiable, divisible, or stock-exchange stocks, and are mainly held, and intended to be kept, as investments by the original subscribers until the terms of years for which each annuity was granted shall have expired. The teaching of the last two centuries of our financial history, as well as the opinion of modern men of business, is decidedly against any attempt to raise large public loans on terminable annuities being either successful, or consistent with popular wants or economy in finance. As regards the past, we annex a few remarks. The public debt of England was inaugurated in the first years of the government of the revolution. The large expenses of its French and Irish wars forced the executive to impose heavy taxes on the country. Nevertheless the large revenue from this source was not enough to supply sufficient ways and means. It was necessary to have recourse to loans. These were at first contracted by the plan which, from ancient times, had been followed by the kings and parliament, namely, by pledging as security certain special taxes, generally customs duties and excise monopolies. This system completely failed. The deficit at the end of the year 1690 had grown to about 8½ millions. In 1692-94, an attempt had been made to obtain money by the offer of life annuities, both by way of TONTINE and also by the offer, at any age of the lives, of 14 per cent on one life, 12 per cent on two lives, and 10 per cent on three lives. In this way 1 million had been raised by tontine, and £300,000 pounds by life annuities. In 1694, 1 million was raised in exchange for an annuity of £140,000 for a fixed term of 16 years. This represents the extravagant rate of more than 11 per cent interest. The bank of England was founded in the same year, the loan of £1,200,000, at 8½ per cent, which it advanced to the government, was the foundation of the public perpetual debt. In 1695, the holders of annuities on one life at 14 per cent at any age were offered, on payment by them of an additional sum in cash, an exchange into annuities for a term of ninety-six years certain. The length of time these terminable annuities had to run caused them to be called "long annuities." The rate of interest for the term of ninety-six years, after allowing for the further cash payment on the conversion, was no less than 8½ per cent, and £134,122 a year of life annuities were thus exchanged for long annuities. The improvidence of raising money at so high a rate of interest soon became obvious to many economists and practical men, and numerous were the projects submitted to Charles Montague, afterwards EARL OF HALIFAX, for his guidance as chancellor of the exchequer, to raise funds at the more reasonable rate of 5 per cent by "transferable funds of perpetual interest." Thus early, that is in 1694-96, was it thoroughly well understood that money could only be raised on terminable annuities upon comparatively costly terms. They continued, however, to be raised in this way, notwithstanding the adoption of

the perpetual annuity plan for some loans. In 1717 the national debt was about 40½ millions. Of this, 19 millions had been raised by perpetual annuities at an average, from 1692 to 1717, of about 5½ per cent, and 21½ millions by terminable annuities at rather over 7½ per cent interest, or at a loss of extra interest of no less than 2 per cent. The inevitable waste of money, and the inferior, if not absolutely impossible, negotiability of terminable annuities on the stock market, was foreseen in the clearest manner by PATERSON, founder of the Bank of England: *vide* his "Conferences of the Wednesday Club." Down to 1745 the annual charge imposed on the exchequer for interest and sinking fund together paid to holders of terminable annuities never exceeded £200,000 per annum. In 1760 it had grown to £232,000. In 1761 took place the first new creation of long annuities according to the more modern system of issue of such securities subscribed for afterwards at different times, but having, for each issue, a common date of ending, 5th January 1860, and offered to the public, *not* as the main means of raising a loan, but solely as an auxiliary. In point of fact, from 1762 to 1813, nineteen different loans were subscribed in consols, with a small amount of long annuity given in as a *douceur*, or supplementary advantage. Take for example the loan of £12,000,000 at par raised in 1762, for each £100 paid £100 of consols bearing 4 per cent perpetual interest (afterwards reduced to 3 per cent) was allotted to subscribers, together with £1 per annum of long annuity, having ninety-eight years to run, that is expiring at the common date of expiry before mentioned, namely 5th January 1860. The year 1813 saw an end to the issue of terminable annuities as a *douceur* to subscribers to consols loans, but, with the close of the loan of that year, the total annual charge for terminable annuities had grown to £1,359,453. In 1855, however, an experiment in the same direction was again made, 16 millions sterling were added to the national consols debt in that year, and £116,000 per annum of temporary annuities, for thirty years, expiring in 1885, were also issued. The writer of this article has before him a minute he made on the relative prices of the two classes of security. He may be allowed perhaps to quote it as an illustration in point. "The price, on the day we are writing (12th April 1862), is 15½ for an annuity having twenty-three years to run. Buyers can therefore secure themselves a return of 3¾ per cent. The price of consols is about 94, which represents a return of only 3½ per cent, or ¼ per cent less than that from the temporary annuity. The cause of this is, in part, the far less number of buyers, or, to use the familiar phrase, the worse market for terminable as compared with perpetual annuities; and in part the well-known fact that the burthen of income tax is felt to weigh much more heavily on the temporary than on the perpetual annuity, being imposed on sinking fund or capital in the case of the former as well as on the interest, whilst in the case of the latter it falls on the interest alone; there is a confiscation therefore of part of the capital in the one instance, whilst the perpetual annuity escapes it for the simple reason that it is all interest only." The question of incidence of income tax on the sinking-fund, part of a temporary annuity, has been fully discussed in the article ANNUITY in the first volume of this Dictionary. F. H.

TERMON LANDS is the Irish term for church lands, which in the old Irish financial system enjoyed entire exemption from taxation. C. A. H.

TERRITORIUM. After the conquest of a country, the Romans always hastened to consolidate their power by planting colonies in it. A separate *lex colonica* was passed, which settled the number of the colonists; directed the formation of *civitates*, or colonial towns; and gave to each *civitas* its *territorium*, which was either to be *juris Italici*, that is allodial, or in *possessio*, and so theoretically resumable by the state. Other details were settled by the same law, and the *territorium* was then marked out in accordance with it by *agrimensores*. Roads east and west, intersecting each other at the spot where the city was to be founded, divided the territory into four *regiones*. Lesser roads, or *limites*, cut up these *regiones* into rectangular plots or *centuriæ*, commonly of 200 *jugera*, each forming the estate of a colonist. When two or three *centuriæ* were assigned to one man, the estate was called *latus fundus* (Siculus Flaccus, Lachmann, p. 157); but such an estate would not exceed 375 English acres, and must not be confused with LATIFUNDIUM (*q.v.*). An elaborate system of marked stones defined the *centuriæ*, and mounds, pits, or stones distinguished the boundaries of different *territoria*. The conquered races were generally left as *coloni*, free, though attached to the soil.

[C. Lachmann, *Gromatici Veteres.*—H. C. Coote, *The Romans of Britain.*—Elton, *Origins of English History.*] R. H.

TERTIUS DENARIUS. This, the third part of the profits of his jurisdiction, belonged in early times to the ealdorman of the shire. Under Edward the Confessor, the earl appears to have had the third penny of the county, which included one-third of the *firma burgi* of the towns (*Domesday Book*, i. 1, 203, 246, 336, 337) (see FERM). In the Pipe Rolls, from 2 Hen. II., the earl had a third of the revenue from the pleas of each county. The payment can be traced as late as 1336.

[Stubbs, *Constitutional History*, i. 113, 160; iii. 471.—Ellis, *Introd. to Domesday*, i. 167, 168.] R. H.

TESAURO, GASPARE ANTONIO (17th century), a Piedmontese jurist, wrote a treatise on the alterations in the value of the coins, *augmentum monetarum*, as it was called by the writers of that period—and defined by Tesauro as "the raising the nominal value of the current coins by the public authority irrespective of their metallic value." Tesauro examined the various methods in which this alteration was effected, and the complicated judicial arguments it led to, especially in payments and in contracts which did not fall due for a long period.

The introduction to Tesauro's treatise, on the money-requirements for facilitating negotiations, is of importance from an economic point of view.

Tractatus de augmento monetarum, 1609. [See Supino, *La scienza economica in Italia, etc.* 1888.—Gobbi, *L' economia politica, etc.*, 1889.] U. R.

TESTA DE NEVILL. This name is given to the whole of the return, otherwise called *Liber Feodorum*, printed by the record commission in 1807; but it strictly applies only to the parts of it incorporated from a roll so entitled, a fragment of which is extant. The record is probably to a considerable extent a compilation from much older materials. There are descents of land (*e.g.* Sowe, p. 87), from the conquest, and an interesting manorial extent is included (p. 186). It gives an account of the estates of tenants *in capite*, and of their widows and heiresses; of fees held of tenants *in capite;* of fees in frankalmoigne; of

serjeanties held of the king; of churches in the king's gift; of escheats; and of the sums due from each tenant for scutage and aids. It thus shows the way in which the country was parcelled out in great estates under Henry III. and Edward I., to whose reigns it chiefly relates (see DEPOPULATION).

[Scargill Bird, *Guide to Public Records*, p. 114.—W. Rye, *Records and Record Searching*, ed. 1897, p. 39.] R. H.

TESTAMENT. See WILL, BEQUEST BY.

TESTAMENTUM signifies in Roman law a will or testament by which a person appoints a universal successor (*heres*) to succeed him after his death. Besides the appointment of a universal successor which is essential to a Roman will, and distinguishes it from a codicil, a will might contain charges on the succession by way of legacy and other provisions. For the history of the testamentum and the modes of its execution, see Smith's *Dictionary of Greek and Roman Antiquities*, *s.v.* E. A. W.

TESTOON was the name given to the debased nominal twelve-penny silver pieces coined and current 1543-60; the standard twelve-penny piece coined 1504-43, and after 1560 being called shilling (see RECOINAGES, and for value, the SHILLING). Holinshed (*Description of England*, ch. xxv.) gave the name of testoon to the sixpence; and it may be doubted whether it ever passed current at more than that sum. The word means a coin with a head on it, and came immediately from France; the first, those of Francis I., = 10 sous; the last, those of Louis XIV., = 20 sous 6 den. It was originally derived from the Italian testone, which was not finally superseded till 1865; in Tuscany the coin equalled 2 lire. In Portugal the tostão in 1802 contained 42·5 grains pure silver, and therefore all but equalled our sixpence. It is now identified with the 100 reis-piece; which, being token money, is slightly debased (see REI).

[W. A. Shaw, *History of Currency* (1896), p. 422.—Ducange, *Glossarium*, *s.v.* "Moneta Argentea."] J. D. R.

THACKRAH, CHARLES TURNER (1795-1833), a Leeds physician and physiologist, wrote a report on lodging-houses to a Leeds committee (1819), and *The Effects of Arts, Trades, and Professions on Health and Longevity* (1831, 2nd ed. 1832). This remarkable book, after showing that "the duration of human life is considerably less in the West Riding, the manufacturing districts, than in the other parts of Yorkshire," and especially in Leeds, states, after the manner of Ramazzini, the writer's experience of diseases incident to trades, and his belief that most were preventable.

[J. Hutchinson, "Contributions to Vital Statistics," in *Journal of Statistical Society of London*, vii. 193, 206; *ib.* ii. 420.—M'Culloch, *Literature of Political Economy*, p. 273.—H. Whytehead, Biographical Memoir in Thackrah's *The Blood*, ed. 1834. The subject has lately been dealt with by Dr. Arlidge, *Diseases and Occupations* (1892), and Dr. W. Kley, *Die Berufskrankheiten* (1897). See also Dr. Farr, *Vital Statistics* (1885), pp. 392 *seq.*] J. D. R.

THALER. See DOLLAR, History of; and DOLLAR, Maria Theresa.

THELLUSSON, PETER (*d.* 1797), was a wealthy banker and merchant, the provisions of whose will led to the passing of an act of parliament bearing his name. He was the son of Isaac de Thellusson, Swiss ambassador at the court of Louis XV. Settling in London as a merchant, about the year 1750, Peter Thellusson acquired enormous wealth, and this he disposed of by will in such a way as to result in prolonged and costly litigation. First, he bequeathed large fortunes to all the members of his family; and then he left the residue of his wealth to trustees, to accumulate during the lives of his three sons, and afterwards of all their sons. Considering that at the time of his death the testator's estates were valued at £4500 a year, and that his personal property amounted to £600,000, some idea may be formed of the gigantic nature of his prospective arrangements. The will further provided that the accumulated fund—estimated as likely to produce some £19,000,000—was to be used to purchase estates for the eldest lineal descendant of his three sons. The accumulation of property was to proceed for twenty-one years beyond the life of the last of the testator's grandchildren.

Such an unparalleled concentration of property induced the legislature to prohibit similar dispositions in the future. Accordingly, in the year 1800, the Thellusson Act was passed. The act restricted the accumulation of income—except for the payment of debts, etc.—to a period of twenty-one years from the death of the settler, or some other of the limited periods described in the act. This act, as a matter of course, had an application to Thellusson's will, which was, however, contested on other grounds. After protracted litigation on the subject, which ended in 1859, the property was found to be so much encroached on by legal expenses that the actual sum inherited was not much beyond the amount originally bequeathed by the testator.

[*Acts of Parliament.*—*The Annual Register*, 1797.—*Chambers's Encyclopædia*, vols. viii. and x.] G. B. S.

THEORY. The term *theory* is perhaps most frequently used in opposition to *fact*. Economic theory and economic history are contrasted; and theoretical enquiries are regarded as having little or no bearing on practical questions. A certain ambiguity, however, is involved in contrasting theory with fact, and theoretical with practical enquiries. When *theory* and *fact* are placed in antithesis, the distinction relates

to the abstract or general on the one side and the concrete or particular on the other side. But when a *theoretical enquiry* is contrasted with a *practical enquiry*, the former is understood to be concerned with the *explanation of facts* and the latter with the *regulation of conduct*. We have, therefore, to recognise a four-fold rather than a two-fold distinction in the treatment of economic problems: viz. (1) abstract positive; (2) abstract regulative; (3) concrete positive; (4) concrete regulative. It may perhaps be maintained that the distinction between the abstract and concrete is more fundamental than that between the positive and regulative aspects of economic doctrine.

Apart, however, from these distinctions all will be prepared to agree that theory deals with the *explanation of facts* and history deals with the *collection of facts*. We have then to examine the mutual relations between the explanation and the collection of facts. It is sometimes thought that facts speak for themselves, that, when a record of events is presented in their chronological relations, the causal relations will straightway be manifest; and thus history will give rise to theory. But without some sort of theory it is impossible to connect facts even according to their chronological significance. For many events that are temporally contiguous are not causally connected; and many events that are causally connected are not temporally contiguous. Thus Dr. Keynes writes (*Scope and Method of Political Economy*, 2nd ed. p. 281): "A knowledge of theory, *i.e.* of previously established general propositions relating to economic phenomena, teaches the historian what kinds of facts are likely to have an important economic bearing. Even when engaged in the mere collection and registration of events, it is often advantageous, as Jevons has pointed out in the case of the physical observer, that our attention should be guided by theoretical anticipations. . . . Knowledge of cause and effect in the economic world is, accordingly, of assistance for discriminating between the facts to be specially noted and those that may without risk of error be disregarded." The value of the historian's work is to be estimated, not so much by the accuracy and exhaustiveness with which events are described and dated, as by the clue which his presentment affords for penetrating into the obscure relations of cause and effect. "The narration of events is influenced by the narrator's theoretical views." The *same* series of events may even be so presented as to suggest or confirm *opposite* views in economic theory. For example, Carey "collected a great mass of evidence in support of his proposition that the general progress of cultivation has been from lands which would be regarded as poor in an old and settled country, to those which would be regarded as rich." These facts were collected with the view of attacking Ricardo's doctrines on DIMINISHING RETURNS and rent as applied to agriculture. But, as Professor Marshall proceeds to maintain, many of these cases really afford instructive illustrations of those doctrines when rightly understood. It is necessary that theory should be used in guiding the historian's selection and interpretation of facts; and, therefore, it is essential that the theory should be sound, since it is impossible for theory to be altogether discarded. It may, however, be maintained that theories should be used only *provisionally*, and that the historian has merely to take care that his theories do not bias him in his interpretation of facts, and that theories should be adopted and maintained only so far as they are confirmed by an unprejudiced survey of particular facts. This is true, but it does not give sufficient weight to the necessity for other means of establishing theory besides that afforded by agreement with historical facts. We may rightly hold to a theory in the face of facts, if the theory has been established by an analysis of general laws of human or physical nature. In such a case, the apparent contradiction between theory and fact will lead us, not to reject the theory, but to modify our apprehension of the fact. It will lead us to search for a completer and exacter analysis of the case; to look for some concurrent conditions which have influenced the action of the force whose law has been formulated in the theory. In this way our knowledge of facts is actually determined by our understanding of theory. That there is danger of perverting our account of facts under the influence of preconceived theory is undeniable; but there is some truth in the paradox, "Take care of the theory, and the facts will take care of themselves." For economic phenomena become increasingly complicated as civilisation advances, and it is impossible without the intellectual machinery of ideas to obtain an adequate grasp of the interactions between the various conflicting and co-operating factors which contribute to the production of an "economic fact."

Dr. Keynes, in chapter ix. of his *Scope and Method of Political Economy*, has pointed out the various ways in which historical and theoretical enquiries are mutually related. He treats first of the functions of economic history in theoretical investigations. He points out how a study of the phases through which industrial conditions have passed helps us to perceive more distinctly the characteristics of significance in our present organisation of industry with which theory has to deal. He then shows how economic theories, reached by abstract reasoning, can be *illustrated* by history; and how these illustrations confirm theory, and aid the student in grasping the severely abstract form which

the reasoning often involves." He next points to the function of history in *criticising* theory, which leads to the qualification or limitation of doctrines that may have been laid down too unreservedly. And finally, he examines how far economic theories can be *established* by history with or without the aid of deductive reasoning. He then turns to consider the functions of economic theory in historical investigations, and points out that "just as it is a function of history to criticise theory, so it may be regarded as a function of theory to criticise history. Theory often cannot tell definitely what actual results will follow from any given change; but it can determine the kind of effects that are probable or possible, and it can often particularise the conditions under which each will occur. . . . It is often competent to declare that a given effect cannot have been due to the assigned cause, or at least that this cannot have been the case under the stated conditions." He lastly shows how the history of economic theories throws light on the course of economic events, owing to the continual interactions between facts and ideas.

When the importance of theory is depreciated it is frequently done on the ground that *common sense* can decide economic questions for itself without the apparatus of a highly technical science. In answer to this contention it would seem enough merely to point to the contradictions disclosed in the deliverances of common sense, as found in different countries and at different epochs, in regard to almost every economic problem of practical importance. Can common sense deal with the questions of free trade *versus* protection, of monometallism *versus* bimetallism, of state insurance and of poor relief, even when restricting its consideration to the purely economic aspects of these problems? Surely the extremely opposed conclusions to which practical men familiar with business affairs have arrived in attempting to decide these thoroughly practical and urgent issues, constitute a convincing ground for maintaining the essential need of theory as a basis for the guidance of practice. W. E. J.

THIERS, Louis Adolphe (1797-1877), born at Marseilles, died at Saint-Germain-en-laye (Seine-et-Oise). We shall not discuss Thiers as a statesman here, and will only mention that if this incomparable orator, this devoted and patriotic citizen was a protectionist all his life, he was for all that a resourceful and versatile financier and a genuine follower of Baron Louis.

We will pass over his great historical works:—*L'histoire de la Révolution* (1823-27) and *Le Consulat et l'Empire* (1845-62), powerful and full of interest—charming in style, from the pages of which political economy, though the author did not intend to bring it in, is never long absent. Besides this, he wrote with much charm in the only published number of the *Revue Progressive* (1826) "l'Histoire de Law," or rather the history of his system.

The publication of this work in 1848, during the empire (reprinted 1858, 18mo) had its origin in alarm caused by the errors of the socialists. His book *De la Propriété* owed also its origin to his desire to oppose these errors, but he did not perceive that at the same time he struck a severe blow at protection. His *Discours*, which so often deal in his own manner with economic subjects, have been collected and reprinted, in 15 vols. 8vo, by M. Calmon.

Some aphorisms which have won popularity with the enemies of the science, such as, "Taxation is the best investment," and, "Political economy is dull reading," were ascribed to Thiers, and he never denied their paternity. A. C. f.

THIRLAGE, a feudal right in Scotland by which an obligation was imposed on the inhabitants of a district to grind their corn at a particular mill. The lands thus astricted were known as the "thirl" or "sucken." Nearly every manor had a mill, and in some cases there were several, each with its own thirl. A proportion of the grain ground was charged as the "multure," or fee for the use of the mill; out of every boll a certain measure went to the mill owner, half as much to the miller, and a quarter as much to the miller's man. Thirlage was a right, not a Servitude, and was conferred by grant, expressed or implied, or by prescriptive possession, founded on written title. It formed the subject of many grants by king or baron to religious houses. An abbey would sometimes receive the right to a mill, or a certain annual sum secured on a mill, sometimes it would be exempted from multure dues. A landowner could let his thirlage-dues for eight, nine, or even twenty-one marks per annum, or demand a like sum as a composition instead of them. Besides having to bring their corn to be ground at the mill, the Villeins were obliged to repair the dams. In the case of country mills, thirlage applied only to corn ground in the thirl; in the case of borough mills, to all the corn within the sucken, whether produced there or imported. The owner of the mills at Leith tried to levy multures on all the flour brought to the port for the use of Edinburgh, until his extortion was stopped by parliament (8 Parl. J. IV. c. 15, James IV. 1489-1513). In the Highlands the thirl was called "siucam," and the multures "cis." (For example as a national tax, see Macinato.) L. R. H.

THISTLE RENT. When sheep were driven from one part of the country to the other in the middle ages, the owners of the lands through which they passed received payment for allowing them to graze. This payment was called *Thistle Rent*.

[Cowel, *Interpreter*.] A. E. S.

THOMAS, PIERRE ÉMILE (1822-1880), a French engineer, was, 6th March 1848, appointed director of the famous ATELIERS NATIONAUX (*q.v.*). Here he contrived to maintain order, but was abruptly dismissed 27th May.

His *Histoire des Ateliers Nationaux*, published a few weeks later, and summarised in the *Quarterly Review* for June 1850 (vol. 87, pp. 118-141), is full of bitter recrimination against some of the ministers of the period. It is mainly a pleading *pro domo*, but interesting through the number of original documents inserted. At the end of 1848, Thomas was officially sent on a mission to the French colonies, where slavery had just been abolished, to organise a system of free labour. His official report *De la réorganisation du travail libre et de l'immigration européenne aux Antilles* was printed in 1849 at the *Imprimerie Nationale* in Paris. Thomas, who was a strong advocate of free trade, published in 1850 a pamphlet entitled *Des conditions vraies de la science économique, de la théorie de la rente et du principe de la population*, and in 1852 a French translation with notes of the *Organisation of Industry* by T. C. BANFIELD (*q.v.*). E. CA.

THOMASIUS, CHRISTIAN (1655-1728), an eminent member of the protestant branch of the German cameralists of the 17th and 18th centuries (see CAMERALISTIC SCIENCE; GERMAN SCHOOL OF POLITICAL ECONOMY), was the son of a professor of rhetoric at Leipzig, and afterwards became a teacher of jurisprudence at that university. An ardent adherent of PUFENDORF, a teacher of natural law, he became, though strictly religious himself, engaged in a dispute with his orthodox colleagues. He made many enemies by lecturing after 1688 in German instead of Latin. In 1690, he fled from the persecution of his opponents to Halle, where the elector of Brandenburg allowed him to continue his lectures at the school for young noblemen (Ritterakademie) of that place. He had there a large following of students, and this led the elector to found the university at Halle, 1694. At this rapidly developing university, of which he was soon made principal, the prince being the head, Thomasius gave instruction in all branches of jurisprudence, including economics. His proposal to establish chairs of CAMERALISTIC SCIENCE at the universities was carried out a year before his death, as in 1727 King Friedrich Wilhelm I. of Prussia appointed Professor S. P. GASSER to the chair at the university of Halle, and Professor T. C. Dithmar to that at Frankfurt on the Oder.

From an economic point of view, Thomasius may be placed between SECKENDORFF and SCHRÖDER. Thus he was nearer in mind to the earlier Cameralist, Ossa of Saxony, whose work *Prudentia regnativa*, 1556, he republished in 1717 with notes. He gives no fresh views in this; his other numerous works have little to do with political economy.

Thomasius did far more by stimulating the desire to study than by any original work. A resolute opponent of the "trial of witches," or judicial torture, and the inquisition, he must be considered as one of the harbingers of the period of enlightenment. By his use of the German language in his pamphlets, and in a monthly publication he brought out towards the end of his life, he must be regarded as the founder of journalism in his country.

[Luden, *Christian Thomasius nach seinen Schicksalen und Schriften*, Berlin, 1805. — Hinrichs, *Geschichte der Rechts- und Staatsprinzipien*, bk. iii., Leipzig, 1852. — Bluntschli, *Geschichte des allgemeinen Staatsrechts*, München, 1864. — Roscher, *Geschichte der deutschen Nationalökonomie in Deutschland*, München, 1874. — Nicoladoni, *Chr. Thomasius, ein Beitrag zur Geschichte der deutschen Aufklärung*, Dresden, 1889.] A. O.

THOMPSON, THOMAS PERRONET (1783-1869), the midshipman-fellow of Queen's, the British general who invented an enharmonic organ and an Euclid without axioms, is better known as proprietor of the *Westminster Review* (1829-36), M.P. for Hull (1835-37) and Bradford (1847-52, 1857-59), and author of tracts in favour of a limited inconvertible paper money (*Westminster Review*, 1824, rep. 1830; *Catechism on the Currency* (1848); Hansard, 3 S. vol. cxxii. pp. 899-901), and best of all as the radical anti-corn-law pioneer and author of *The true Theory of Rent* (1826); *Catechism on the Corn Laws* (1827, 18th ed. ster. 1834), and other writings abstracted by R. Cobden (1842). The "true theory" ascribed rent, along with diminishing returns, to rising prices due to the pressure of a growing demand upon a limited supply. RICARDO, against whom the pamphlet was aimed, also wrote of the high price of corn as "causing" rent (*Works*, ed. M'Culloch, p. 40); but also wrote of diminishing returns as "causing" increased rent (*ib.* p. 202; although he usually wrote "regulating" a word which Thompson wrongly construed as "causing"). What was correct in this criticism had been anticipated by a writer in the *Quarterly* (vol. xxv. p. 476); and Malthus, *Third Report on Emigration*, 1826-27 (qu. 3341), and J. B. SAY endorsed it. He also combated Ricardo's and J. S. Mill's view that agricultural improvements would lower rent; but all three disputants underrated the effects of increased demand for secondary necessaries of life. He also regarded land tax and tithe—this was before the commutation—as mere deductions from rent, not with Ricardo as taxes on the consumer. But his theoretical writings are always unsatisfactory. His *Catechism on the Corn Laws*, praised by Lord King, J. Hume, and J. S. Mill (*Westminster Review*, vol. vii. pp. 178-186), was the first and one of the most brilliant examples of economical polemics which the free-trade movement evoked. The method was doubtless

suggested by J. B. Say's *Catéchisme* (1815); but its point and humour are original.

His *Exercises, political and others* (1842), collect his writings up to date. His *Audi alteram partem* (1858-61) and *Catechisms on the Ballot* (1855, 1864) are political.

[A. Bisset, *Notes on the Anti-Corn Law Struggle* (1884), pp. 36-85.—A. Held, *Sociale Geschichte Englands* (1881), pp. 325 *et seq.*—S. Smiles, *Howitt's Journal*, vol. ii. p. 66.—C. W. Thompson, *Memoir* (1869).] J. D. R.

THOMPSON, WILLIAM (? 1785-1833), a socialistic theorist of some distinction, was a native of the county of Cork. He was a man of singularly pure, unselfish, and public-spirited character, and an earnest student of moral, social, and political science. In Bowring's edition of the works of Jeremy BENTHAM is given a letter from the philosopher to Thompson, who had consulted him on the subject of establishing a "Chrestomathic" school in Cork. This is followed by a second letter (September 1819) in which he invites Thompson to stay at his house while in London. Thompson afterwards resided with Bentham for several years; but besides the above, there is no further mention of him in Bowring's book. He was under the influence of OWEN as well as Bentham, and hence we find in him a combination of radicalism with socialism—of the love of freedom with the desire for equality; and these tendencies remained unreconciled, the latter finally predominating. His principal work is an *Inquiry into the Principles of the Distribution of Wealth most conducive to Human Happiness* (1824). It "fell still-born from the press," says William Pare, who republished it in a considerably abridged shape in 1850. Thompson died at Clounksen, in the barony of Roscarbery, county of Cork. He made a will leaving the great bulk of his property, consisting of freehold estate in that county, to trustees for the purpose of propagating his principles and aiding in their practical application. He also bequeathed his books to the library of the first co-operative community that should be established in Great Britain or Ireland. Following the example of Bentham, and wishing, like him, to protest against what he considered a mischievous prejudice, he directed that his body should be publicly examined by a lecturer on anatomy, and the skeleton preserved in an anatomical museum. His editor states that these directions were complied with, notwithstanding strong opposition on the part of the neighbouring peasantry. But the disposition of his property was contested by some of his relatives; and, when Pare re-edited the *Inquiry*, litigation respecting it was still going on in the Irish court of chancery.

The title of Thompson's principal work may be regarded as implying a protest against the ORTHODOX ECONOMISTS, who declare, as did SENIOR for example, that they are concerned, not with happiness, but with wealth, and are perhaps even bound to omit all considerations which have no influence on wealth. For happiness, Thompson holds, the distribution of wealth is more important than the increase of its amount, chiefly because a right distribution tends to moral improvement. To this subject, accordingly, his work is devoted. He sets out from the principle of utility, conceived according to the Benthamite formula, and from the economic assumption that labour is the sole source of wealth, as well as the sole measure of value. He then lays down the following as the three natural laws of distribution: "(1) All labour ought to be free and voluntary, as to its direction and continuance; (2) all the products of labour ought to be secured to the producers of them; and (3) all exchanges of these products ought to be free and voluntary." The operation of the second law would lead to inequality of distribution; but, according to him, equality, as the means of the greatest happiness, should be the rule, except in so far as inequality is admittedly necessary to guarantee the security of enjoyment required for the stimulation of human energies and the consequent continuance of production. As things now are, the labourer receives, instead of the entire produce of his labour, only a bare maintenance, a large part being absorbed by the claims of the landlord for rent and the capitalist for profit. These claims he does not absolutely dispute, but thinks that their amount should be greatly reduced. Under the present organisation of industry, however, he believes the reconcilement of equality with security to be but imperfectly attainable, and he accordingly proposes to substitute for the present economic order, resting on individual competition, a new system, essentially that of Owen, founded on mutual co-operation in communities based on voluntary association. In the course of the discussion here summarised, it becomes plain, as Menger has observed, that Thompson had conceived and worked out the theory of surplus value, which has been commonly attributed to RODBERTUS or MARX. In meeting actual or possible objections to his system, he goes into an interesting polemic against the doctrines of MALTHUS. He hoped that the régime of voluntary equality in the distribution of wealth and the means of enjoyment would be attained, if only restraints were removed, through the action of reason, early education, and the diffusion of knowledge; and repudiates any use of force to establish it. Thompson's faults of style have interfered with the effect of his work. His treatment is prolix, there is a good deal of repetition, and some undue elaboration of commonplaces. But the book is throughout elevated in moral tone, and, notwithstanding its erroneous or visionary elements, contains much that is suggestive and awakening.

His other publications were: *An appeal of one-half of the human race, Women, against the pretensions of the other half, Men, to retain them in political, and thence in civil and domestic slavery; in reply to a paragraph in Mr. (James) Mill's celebrated Article on Government*, 1825.—*Labour Rewarded. The Claims of Labour and Capital conciliated; or how to secure to labour the whole products of its exertions*, 1827.—*Practical direc-*

tions for the speedy and economical establishment of Communities on the principles of Mutual Co-operation, United Possessions, and Equality of Exertions and of the means of Enjoyment, 1830.

In the last-named work, whilst he maintains the necessity of freedom in entering a community; when a member has once entered, freedom is entirely sacrificed to equality. The nature of the labour to be performed by each member is determined by a universal vote, which practically means that it is fixed by the elected administrators of the community.

[Pare, preface to his edition of Thompson's *Inquiry*.—Lippert in *Handb. der Staatsw.*—Held, *Zwei Bücher zur sozialen Geschichte Englands*.—Menger, *Das Recht auf den vollen Arbeitsertrag*.—J. S. Mill, *Autob.* (ed. 1873), p. 125.] J. K. I.

THONISSEN, JEAN JOSEPH (1816-91), was born at Hasselt (Belgium), and died at Louvain. A statesman and an authority of the first rank on criminal law, Thonissen in politics belonged to the Roman Catholic party, and while he was a sincere supporter of the Belgian constitution, he gave it a second place to the encyclicals of the pope,—in short he was ultramontane.

In 1871, a Roman Catholic cabinet attained power for the first time in Belgium. Thonissen refused then to take part in it, he had little ambition for power, and he preferred to retain his chair at the Roman Catholic university of Louvain, where from 1848 to 1884 he gave instruction in penal and criminal law. It was only on 16th June 1884 that he became a minister of state, but in October 1887 his health obliged him to resign office.

As a lawyer his works, and in particular his *Études sur le droit pénal chez les anciens* (4 vols. 8vo, 1868, 1869, and 1875), made his reputation. He considered capital punishment as useless for the repression of crime, and frankly sought to abolish it.

As an economist he employed his elegant, calm, and lucid style to contend with socialism by proof from history. Thus in 1850 he wrote *Le Socialisme et ses Promesses* (2 vols. 18mo), and in the following year *Le Socialisme dans le passé* (3 vols. 18mo). These two works remodelled, formed the following *Le Socialisme depuis l'antiquité jusqu'à la constitution française du 14 janvier 1852*. "Ideas," he wrote in the introduction of this book, "should be combated by other ideas. . . . The intelligence of the masses must be raised, and morality brought home to their hearts." But, according to him, to bring morality home to the heart could only mean to reclaim it to Roman Catholicism. "There can only be one form of worship," he exclaimed, 19th February 1873, in the tribune of the chamber of representatives, where he had been sent by the electoral college of Hasselt 1863. Thus he protested against freedom of religion, as during the same session he protested against freedom of the press.

His loyal and open mind, his cordial and sober bearing in private life, earned him, however, general esteem even among his political opponents.

A. C. f.

THORNTON, HENRY (1762-1815), banker, was M.P. for Southwark from 1783 till his death. He was one of the founders of the Sierra Leone Company (see AFRICAN COMPANIES, EARLY), of which he was for a time chairman. Thornton shared the views of his friend William Wilberforce, and was the representative of business among a group which, though small, was a marvellously well-equipped body of men, and of whom W. PITT was the most prominent. Thornton was in favour of a graduated income-tax and paid his contribution himself to the exchequer "on the scale of his ideal not his legal debt." (See *Contemporary Review*, vol. lxviii. art. on "F. F. Stephen" by Miss J. Wedgwood.) He was also the author of several devotional works, which were very popular.

Thornton published in 1802 *An Inquiry into the Nature and Effects of the Paper Currency of England*, London, 8vo; the value of which is attested by T. Tooke in his *History of Prices*, vol. iv. p. 85. It was reviewed by F. Horner in the first number of the *Edinburgh Review*, November 1802, with the aim of moulding the irregular materials of the original work into a useful arrangement (see *Memoirs of F. Horner*, vol. i. p. 203). Horner's analysis treats the subject under four heads: (1) he considers the principles involved in the general theory of paper credit; (2) and (3) he summarises Thornton's account of the system of credit and paper money established in England, and his statement of the difficulties of the Bank of England in 1787 (see *Bullion Committee, Report of*); and (4) he quotes and discusses Thornton's views with regard to the influences of the paper currency upon prices. Thornton's book contains a temperate defence of the action of the legislature in suspending cash payments. He also published in 1811 the *Substance of two Speeches on the Report of the Bullion Committee*, London, 8vo.

[*Gentleman's Magazine*, vol. lxxxv. pt. i. p. 182.].

H. E. E.

THORNTON, WILLIAM THOMAS (1813-1880), economist, in 1836 entered the London house of the East India Company (*q.v.*). On the transfer of the government to the crown, Thornton was appointed secretary for public works in the India office, which post he held till his death. He was made a C.B. in 1873. Besides the economic works mentioned below, he published several volumes of verse, and translated *Horace*.

Thornton's earlier works were *Overpopulation*, London, 1846, 8vo, and *A Plea for Peasant Proprietors*, London, 1848, 8vo, a new edition of which, enlarged and improved, appeared in 1874. His work *On Labour*, London, 1869, 8vo, is of greater interest. The first chapter contains an elaborate criticism of the theory of price, as depending upon the equation of supply and demand. Thornton's own view is that price is determined by competition, which competition, again, depends upon the estimates formed by the competitors, of prospective supply and demand,

the competition being, in nearly all cases, between the dealers. The price of labour is determined in the same way except that the competition is between the customers and not the dealers. "In a state in which labourers are too poor to combine . . . the price of labour is determined . . . by combination among the masters." Incidentally in a footnote, Thornton attacks the theory of the WAGES FUND (*q.v.*). His arguments called forth from his friend and colleague J. S. MILL (*q.v.*) a complete retractation of his former view. The chapter "on the claims and rights of labour" contains a vigorous onslaught upon the position of those who advocate, on the grounds of justice, what has since been much before the public under the phrase of "a living wage" (see WAGES). Nevertheless, Thornton shows genuine sympathy with the working classes. At a time when trades unions were not strong, as they are now, in public opinion, and when the Sheffield outrages had only recently occurred, he recognised in unions the best means for workmen to strengthen their position. Under the heading of "labour and capital in antagonism," he discusses in turn the "Ends of trades unionism," "its ways and means," and lastly "its good and evil." Sympathetic, however, as is his attitude towards unionism, he regards it, in great measure, as educational, and as tending in the end to bring about a closer alliance between capital and labour. The goal to which he looks forward is "capital and labour in alliance," and the conclusion of the book contains a sympathetic notice of industrial partnerships (see PROFIT-SHARING), co-operative stores and co-operative societies (see CO-OPERATION). A poetic epilogue sets forth "Labour's Utopia." Thornton also wrote *Indian Public Works and cognate Indian Topics*, London, 1875, 8vo.

[*Annual Register*, 1880, p. 175.] H. E. E.

THRALL. A person in *thraldom*, from the Anglo-Saxon *thræl*, a slave (see SERVUS). R. H.

THREE-FIELD SYSTEM (with TWO-FIELD SYSTEM). The open or common arable fields of mediæval manors were most frequently divided into three sections, which appear to have been very often called the East Field, West Field, and South Field. From these have been derived numerous local names in all parts of England. These hedgeless fields were divided into *furlongs* by wide balks of grass, each *furlong* consisting of parallel acre or half acre strips (*seliones*), each divided off from the next by a narrow balk of turf. At one end of each furlong, where the plough turned, was a slip called the *headland*, which ran transversely across the ends or heads of the strips. The holding of each tenant, whether freeholder or villein, was scattered in strips all over these *fields*, and the strips which formed the demesne of the lord of the manor were often intermingled with the others. These were cultivated by the joint labour of his tenants. Two of these *fields* were under crop, while the third lay fallow for twelve months; or rather, from the August harvest of one year to the autumnal ploughing and sowing of the next. Thus field A, which had been sown with wheat in the previous autumn, would be reaped in August; and B, which was sown with barley in the spring, would also be harvested about the same time; but C would have been lying fallow from the harvest of the previous year. The following year A would yield a crop of barley; B would lie fallow; and C would be under wheat. In the third year A would be fallow; B would have grown wheat; while C would have yielded a crop of barley; but oats, rye, or beans would of course have been grown occasionally instead of barley. In this way, out of a villein's virgate, or holding of about 30 acres, 20 would always be under crop. The system is shown clearly by the words which Vinogradoff quotes from an Inquisition of 20 Hen. III. n. 14, in the Record office: *sunt ibidem 360 acræ terræ . . . et seminatæ sunt per annum 240 acræ.*

On the *two-field system*, which was merely an alternation of crop and fallow on the arable land of a manor divided into two sections or *fields*, there would only be 15 acres of each virgate cultivated annually. It was, however, doubtless the custom to alternate the crop on the half which was in use, wheat being succeeded after the fallow year by barley, oats, rye, or beans.

It is probable that the villeins (see VILLANUS) who joined their teams to work the eight-oxen ploughs belonging to the lord of the manor joined them similarly for their own common cultivation. The scattered slips of one villein in the east field, for instance, were thus being ploughed indiscriminately with their own by his neighbours, while he and some associates were reciprocating by equally indiscriminate ploughing in the west field, the south field meanwhile lying fallow.

These hedgeless, and so *open fields*, needed temporary fencing to keep the cattle, allowed to wander over the fallows, from trespassing on the crops, and one of the laws of Ina (Wilkins, *Leges Anglo-Sax.*, p. 21, § 42), in alluding to this, shows that the general system was at work in the 7th century. Its opening words, "if churls have a common meadow or other partible (*geddl*) land to close in," *i.e.* to fence, clearly relate to open-field cultivation with its land partible into virgates and their component strips.

The meadows reserved for the hay crop were similarly fenced in for the necessary part of the year (see LAMMAS-LANDS), and were shared, as were wood, waste, and brushwood, in due proportion to the amount of each man's arable holding.

This curious system possibly points, as Vinogradoff observes, not to the manor, but to the primitive VILLAGE COMMUNITIES (*q.v.*), in which all had annually apportioned shares, and no one owned any part of the arable land

in severalty. This system, which still survives in Russia and elsewhere on the continent, has left many traces in modern England, and since the middle of the 18th century, thousands of enclosure acts have been passed to effect the transition to present methods. People now living have experienced great difficulty in consolidating property which has devolved upon them in the state of scattered acre plots a mile or more apart.

[Scrutton, *Commons and Common Fields.*—Seebohm, *Village Community.*—Vinogradoff, *Villainage in England.*—G. L. Gomme, *Village Community.*] R. H.

THREEPENCE. English silver coin, first struck in the reign of Edward VI.

From the year 1663, when the practice of milling the edges of silver coins was introduced, the pieces of lower denomination than the sixpence were no longer struck for general circulation, though they were manufactured each year in small quantities for distribution with the Maundy alms. Thus the threepence, in common with the other Maundy coins (4d., 2d., 1d.), is still issued with a smooth edge.

From 1663 to 1844 no threepences were coined for general circulation. In 1845, however, £16,434 in coins of this denomination were struck, in addition to the small quantity required as Maundy coin; and from that date to the present time threepences have been coined for general use in every year except 1847, 1848, 1852, and 1869, when coins for the Maundy distribution only were struck.

The following list gives the weights of the coins of this denomination since their introduction in the reign of Edward VI.:—

Reign.	Year.	Weight.	Fineness.	Value in silver 925 fine at 5s. 6d. per oz.
		grs.		
Edward VI. . .	1552	24	925	3½d.
Elizabeth . .	1560	24	925	3½d.
,, to George III.	1601 to 1816	22·25	925	3d.
George III. and subsequently	1816 and onwards	21·82	925	3d.

F. E. A.

THRIFT.

1. Natural Conditions, p. 539; 2. Political Conditions, p. 539; 3. Opportunities for enjoyment and religious and moral ideas, p. 539; 4. Opportunities for saving and the reward of saving, p. 539.

Thrift may be defined as that disposition which leads us to prefer future wellbeing to present enjoyment. As the wealth which can be extracted from natural objects has limits, whilst the desires of man are unlimited, it would be easy even for the most favourably-situated to consume in idleness, in riot, or in sheer waste, the whole of the return to their labour. That mankind do not usually act thus is due to the faculty of forethought. Thrift is made possible by foresight; it is strengthened by habit and instruction. Wealth itself is most rapidly increased not by saving at all costs, but by such saving as is compatible with high productive efficiency. Economists have found it no easy matter to note the circumstances favourable or unfavourable to thrift, as they appear to operate now one way and now the other.

1. *Natural Conditions.*—The spirit of thrift may be encouraged or depressed by conditions of soil, climate, and situation. In some countries nature discourages thrift by anticipating every want; in others by making the return of self-denial petty or uncertain. Natural conditions which call for energetic effort, and ensure its reward, encourage thrift; and, accordingly, thrift is most conspicuous among the peoples of the temperate zone. The utmost frugality and simplicity are often practised in tropical countries, but this is commonly due to a low state of the arts of production combined with a dense population; in other words, it is the result of necessity.

2. *Political Conditions.*—The influence of political conditions on the spirit of thrift is manifold. In general, order and security stimulate thrift. If men are to save, they must be assured that they will be allowed to keep the wealth which they lawfully acquire. Political freedom or self-government may strengthen habits of thrift by making men more manly and rational. But these considerations do not exhaust the subject. The tyranny which excludes a people from public life and social distinction sometimes intensifies thrift by making wealth the sole object of desire. Thus the Jews of the middle ages seemed to absorb as by magic the wealth of the Christian kingdoms in which they were regarded as an inferior race. The Christian peoples subject to the Ottoman Porte are noted for their spirit of accumulation.

3. *Opportunities for Enjoyment, and Religious and Moral Ideas.*—These exert an immense influence upon the practice of saving. It is only in exceptional ages that any considerable part of mankind has any great range of pleasures; but in such ages, *e.g.* the prosperous period of the Roman empire or the nineteenth century, the expenditure on pleasure becomes enormous. Self-indulgence reacts on temperament, and the public become more and more averse to the privation implied in frugality. Religious ideas may modify these tendencies; there can be little doubt that an austere form of religion, if it does not break individual energy, favours the growth of riches. The Lowland Scotch, the New Englanders, and, in a less degree, the English mercantile class, from the time of the Commonwealth to the commencement of this century, are instances which will occur to all students of national character. But whilst individual examples of asceticism occur in the most luxurious age, abundant opportunities of pleasure sap the force of ascetic doctrines with the body of the people.

4. *Opportunities for Saving, and the Reward of Saving.*—An abundance of safe and profitable

investments for accumulated capital tends to promote the spirit of thrift. Throughout the middle ages capital was scarce, and therefore commanded high rates of interest, but the openings for its safe employment were few. In modern times these openings have been multiplied. Savings banks, co-operative and building societies, have made it easy to invest petty savings, and have thus diffused the spirit of accumulation. But these facilities for investment have, in combination with other causes, promoted the growth of capital to such an extent that the return on capital has seriously diminished, and the reward of the sacrifice involved in thrift has dwindled in proportion. How the fall in the rate of interest will affect the spirit of thrift is a difficult and interesting question. Men must continue to save as an insurance against want of employment, illness, or old age; and what they save they will continue to invest, though the return on their investments may become small. Hope is the most powerful spur to thrift as to every other exertion of will, and it must be enfeebled when the reward of exertion grows steadily smaller and smaller. That reward will disappear altogether if the state should push to extremes the policy of relieving the incapable from the consequences of their incapacity at the expense of those who could provide for themselves. It is as true now as when Burke employed the quotation: "Magnum vectigal est parsimonia." Many incidental references to the causes which affect thrift are to be found in almost all systematic treatises of political economy, such as Adam Smith's *Wealth of Nations*, Mill's *Principles of Political Economy*, Marshall's *Principles of Economics;* and the literature of philanthropy abounds in suggestions for encouraging thrift. Socialist literature contains many passages in depreciation of thrift, and Mummery and Hobson's *Physiology of Industry* is an ingenious argument against extreme thrift; but the subject is hardly one which admits of discussion in separate treatises. F. C. M.

THRYMSA. An imaginary coin or money of account used by the Anglo-Saxons to denote three-fifths of a shilling when its value was fivepence, or about three-fourths of it when worth fourpence. It was therefore perhaps equivalent to threepence; but the matter is not free from difficulty. The *wergild* of a ceorl in the days of Æthelstan was 266 *thrymsæ*, which were equal to 200 Mercian shillings (Wilkins, *Leges Anglo-Sax.*, p. 71).

R. H.

THÜNEN, JOHANN HEINRICH VON (1783-1850) was son of a landed proprietor in Oldenburg. He received his early education at the high school of Jever, which was near the place of his birth, and was afterwards thoroughly instructed in the theory and practice of agriculture. He settled in Mecklenburg-Schwerin on the estate of Tellow, which he had purchased, and which became famous for the perfect system of cultivation which he carried out there. In 1830 the university of Rostock conferred on him the honorary degree of doctor of philosophy. He was a noble-hearted and public-spirited man. Deeply impressed with a sense of the probability of a formidable conflict between the capitalist employers and the artisan class, he devoted serious attention to social questions. The desire to do something towards averting such a catastrophe prompted alike his theoretic researches and his practical efforts. He thought it monstrous that, as the economists admitted, a working man obtained for his labour the bare cost of his maintenance, and he studied for a long time the problem of normal wages, *naturgemässer Arbeitslohn* (see articles on WAGES). He believed himself to have discovered its solution; but his theorem on the subject has not been generally accepted. "Setting out," says Cossa, "from arbitrary and insufficient premises, he arrives at the conclusion that the required amount is the geometric mean between a and p, where a is the value of the things necessary for the maintenance of the labourer and p that of the products which are the fruit of his labour." Such was his confidence in the correctness of this formula that he desired $\sqrt{ap}$ to be engraved on his tombstone. It may here be observed that, whatever be the worth of the proposition as an abstract theorem, Thünen himself, in his experience at Tellow, found it incapable of practical application from the impossibility of determining the fruit of the labour of each individual, and accordingly adopted a different system—similar, however, in spirit and tendency—that, namely, of PROFIT-SHARING, which he was one of the first to introduce.

His principal work, in which this doctrine of natural wages finds a place, is entitled *Der isolirte Staat in Beziehung auf Landwirthschaft und National-oekonomie* (1st vol. 1826, 2nd ed. 1842; 2nd vol. 1850-1863; 3rd vol. 1863). It is brightly written, and takes rank as an economic classic. The primary object of the work was to establish certain principles by which agriculturists could ascertain the best system of cultivation to be adopted under given conditions, and in particular to determine the natural territorial distribution of those systems according to the distance from the market. He had studied the theory of RENT independently of RICARDO, and arrived at results similar to his; but he thought the "rent of situation," though not indeed ignored by the English economist, had not been sufficiently considered by him. He applies to the problem the same method which Ricardo habitually followed, the study of an imagined state of facts, in which abstraction was made of all the non-essential features of the real case. He supposes an isolated region, without navigable rivers or canals, similar throughout as regards fertility; and he asks according to what law the distance from the centre, where the sole market is situated, modifies the system of cultivation to be pursued in the several concentric belts of territory. That distance is, of course, only one

of the elements of the practical question which the cultivator has to decide, the system to be adopted as the most profitable depending also on the capabilities of the soil, the price of labour, and other data; and the effects of these other conditions would require to be studied separately in a similar manner. But the method followed is legitimate, provided that no real element is finally left out of account. It is difficult, however, to verify results arrived at in this way; and they have, like those of Ricardo, lost much of the practical value which might otherwise belong to them by the opening of the home markets to the productions of distant countries.

The first part of *Der isolirte Staat* was translated into French by Laverrière (1852), and the second by Wolkoff (1857).

[Roscher, *Gesch. der N. O.*, p. 879.—Cossa, *Introd. to the Study of P. E.*, English ed. p. 404.—Lippert in *Handb. der Staatswissenschaften.*—Sedley Taylor, *Profit-Sharing*, 1884.] J. K. I.

TICAL. The standard of value and the money of account in Siam is the tical, a silver coin weighing 233·5 grains of silver 902 fine. It is rated as equal to three-fifths of a Mexican DOLLAR (*q.v.*). The tical is divided into thirty-two pies, the PIE (*q.v.*) being itself divided into ats and half-ats. Two hundred cowries are generally accepted as the equivalent of the pie, but since the coinage, in 1887, of copper pies, ats, and half-ats, the use of cowrie shells (see COWRIE), as currency, has been largely discontinued.

The Siamese currency system is as follows:—

2 half-ats	=1 at	bronze coins.
2 ats	=1 pie	
4 pies	=1 fuang	silver coins.
2 fuangs	=1 salung	
4 salungs or 32 pies	=1 tical	
4 ticals	=1 tamlung	moneys of account.
20 tamlungs	=1 cattie	

F. E. A.

TILLAGE DUTIES is a term found in the Irish financial system before the union with Great Britain. In the early years of the reign of George II. an act was passed to encourage tillage of the soil and inland navigation (3 Geo. II. c. 3, Irish). Commissioners were appointed to carry out the act, and to them power was given to levy certain small duties on dice, cards, plate, coaches, and other articles of luxury. C. A. H.

TIME BARGAINS.

Defined, p. 541; Contracts for Future Delivery, p. 541; Options, p. 541; Time Bargains in Specified Goods, p. 542; Time Bargains in Goods Described by Quality, p. 542; Produce Clearing Arrangements, p. 542; German Legislation on Time Bargains, p. 542; Effect of German Legislation on Business, p. 543.

TIME BARGAINS are contracts entered into between two parties for the transfer at a fixed price of a certain quantity of a commodity, security, or right from one to the other on a specified future date or within a specified time from the date of the contract. In colloquial language they fall under two heads, viz. (1) sales or purchases for "future" or "forward" delivery; (2) options.

(1) *Contracts for future Delivery.*—In practice the parties to these contracts are the body of persons forming "the market" in the article or security dealt in and the persons doing business with them. The terms employed to denote such contracts vary in different departments of business. On the stock exchange all contracts are for future delivery unless otherwise specified, the "contract note" stating that such and such a security has been bought or sold for the next "settlement"—that is within, at longest, nineteen days from the date of purchase; the intervals between stock exchange settlements being usually about fifteen days, and only occasionally longer, except for consols, in which there are monthly settlements. In practice actual delivery of securities may take longer owing to various causes, such as delay in obtaining signatures to transfer deeds, but, in theory, the contract should be fulfilled on the date mentioned. If a buyer or seller wishes to take or make *immediate* delivery, the bargain is entered as "for cash"; but such bargains can only be made, except as a matter of negotiation, in consols and a few other stocks of the highest class. For these latter two prices are regularly quoted in the official list—one "for money" and the other "for the account." Even in their case, however, the price *par excellence* is the "account" price, and any one inquiring "what are consols now," would receive that price as a reply.

In other great markets, such as those for wheat, cotton, iron, and other leading commodities, the usual practice is to quote a price for "prompt" delivery and a series of other prices for a fortnight, and for one, two, three, or more months "forward." The customs in these markets vary from time to time, being changed to suit the altering conditions of business. In wheat and cotton it is often possible to make contracts six or seven months "forward," either for delivery or sale; in iron the most usual forward terms are "one month" or "three months," but there have been periods in the history of the Glasgow pig-iron market when "cash in a fortnight" was one of the recognised modes of settling transactions. In all these cases the principle is the same, namely, that the parties agree that a certain quantity of a given article shall be transferred for a consideration at a given date.

(2) *Options.*—An option contract gives the buyer of the option (called on the stock exchange the "giver," because he "gives" money for the option) the right to purchase, or sell, a specified amount of a certain commodity or security, during a period the termination of which is stated in the contract. It is more frequently employed in the case of securities

than commodities. The stock exchange dealer in options quotes a price expressed as so much per cent of the nominal value of the stocks he is prepared to do bargains in on this system. If he "takes money" for the right to buy a security from him, he is selling a "call." If he receives the consideration for the right to sell to him, he sells a "put." Dealings are also not unfrequently made in "put and call" options; and in this case the "taker" of the money contracts either to buy from or to sell to the "giver" at the latter's option, within the period named. The price for this option is of course higher than for "single" options (see PUT and CALL).

There is nothing in the principle of a "time bargain" which makes it necessarily a speculative transaction for either party. (See the evidence given by Mr. G. W. Medley before the Royal Commission on the London stock exchange, 8437 *et seq.*).

It is important to note that those who attack "time bargains" as encouraging speculation, almost invariably mean bargains in which the party whom we may call the "customer," as opposed to the merchant, dealer, or "jobber," makes a sale. In other words, they disapprove of *sales for the fall*, and think that they can be prohibited, failing to perceive the elementary truth that for every seller there must be a buyer. It is strange that this fact with all it implies is so often forgotten. It is absolutely necessary for any one who wishes to understand the phenomena of markets to keep it firmly in his mind.

[Arthur Ellis, *Market Fluctuations*. The evidence given before the Royal Commission on the London Stock Exchange, 1877, in which various witnesses, besides Mr. Medley referred to above, gave their views on "time bargains."]

[See CLEARING SYSTEM; DEALER; EXCHANGE, STOCK; FUTURES; GRADING; JOBBER; MARKET; OPTIONS; PRODUCE CLEARING; PROMPT; PUT AND CALL; SETTLING DAY.] W. H.

It should be pointed out that in the case of stock-exchange transactions, which are nominally settled on the half-monthly, and in the case of consols on the *monthly* account-day, the really speculative transactions are not generally closed on the next account-day, but carried over (see CARRYING OVER). No doubt the difference between the contract price and the market price of the day must, when the account is made up, be paid; but, as in the case of many time bargains in produce, the margin must also be constantly kept up, this does not differentiate stock-exchange time bargains from produce time bargains. The real difference between the two classes of transactions is, that the produce speculation is for a definite, the stock-exchange speculation for an indefinite period.

Stock-exchange OPTIONS are very rarely sold for the next account-day. Sometimes a very long time is given. In this case therefore the vendor of the option, who runs an unlimited risk, speculates for a definite long period, without having to pay up differences or to keep up a margin, as he would have to do in the case of a speculative unconditional sale on the stock exchange or of a time bargain in produce.

Time bargains in produce must be divided into two classes. In the one case specified goods are sold, in the other case a quantity of goods described by quality, but not otherwise specified, is sold.

(A) *Time bargains in specified goods.*—If a cargo of sugar shipped per *Castalia* which left Mauritius on the 1st February, is sold, the purchaser need not take delivery till the cargo arrives, which may take three months. As a general rule the ships which carry such cargoes call for orders in the Channel and the purchasers are frequently speculators who try to resell the cargo either in the United Kingdom or some continental port. On arrival of the ship in Falmouth, or whatever other port may be selected, the captain telegraphs to the consignee of the ship, who informs the purchaser, who then directs the ship to proceed to the port to which he has sold the cargo. In this case the vendor is not a speculator, but the purchaser generally is—he does not intend to take delivery himself, but to resell before arrival.

(B) *Time bargains in goods described by quality.*—These are generally of a more speculative character than those first named, because *both* vendor and purchaser may be speculators; the former may sell goods he does not possess with the intention of repurchasing at a cheaper price, the latter may not intend to take delivery, but to sell with a profit, and only to pocket the difference. But time bargains of this nature are frequently entered into by the purchaser for entirely non-speculative purposes. Thus a spinner who uses certain qualities of cotton, and has sold yarn to the consumer for several months ahead, *must* buy the qualities of cotton used by him for delivery at the time he wants them. *In his case the omission to make a time bargain would be speculation.*

Produce Clearing arrangements deal exclusively with time bargains in goods described by quality. The working of these time bargains cannot be properly understood unless these clearing-house arrangements are studied. There are three important clearing-houses of this nature in England:—

(*a*) The Cotton Association in Liverpool for time bargains in cotton (see CLEARING SYSTEM, COTTON CLEARING).

(*b*) The Corn Association of Liverpool for time bargains in wheat and grain generally.

(*c*) The London Produce Clearing-House for all kinds of produce, which is chiefly used for time bargains in coffee (see CLEARING).

It should be pointed out that time bargains in goods described by quality are necessarily confined to certain kinds of goods produced in qualities which can be easily classified by reference to certain standard types. With some kinds of goods (*e.g.* wool) this is impossible. Such goods are therefore generally bought by sample obtained from the specified lot which the vendor has to sell. It would be interesting to examine, by the aid of statistics, whether the fluctuations in this class of goods are less violent than the fluctuations in those which are sold by description. The result would throw some light on the economic advantages or disadvantages of time bargains.

German legislation on time bargains.—The subject of time bargains was gone into very carefully by an imperial commission in Berlin which took evidence four or five years ago under the chairmanship of Dr. Koch, the governor of the Reichsbank.

The report of the commission led to the passing of the German *Bourse Law* of 1896, which, however, went much further in the direction of state interference than the recommendations contained in the report, and the proposals of the original Government Bill. The statute in question, which came into force on 1st January 1897, after defining the term "time bargains" in a somewhat complicated manner, and so as to exclude contracts of the nature described above, sub. (A), deals with the class of transactions to which it refers in two separate ways: (*a*) it prohibits time bargains (1) in mining and industrial shares, and in shares in companies not having a capital of at least 20,000,000 marks (£1,000,000); (2) in corn and flour; (3) in such stock-exchange securities or kinds of produce as the federal council or the authorities of any stock exchange or produce exchange may by order declare to be subject to the prohibition; (*b*) as regards such classes of time bargains as are not prohibited under the rules referred to sub. a, it provides that they cannot be entered into except by persons registered as dealers on a register, to be kept for the purpose by the authorities by whom the local mercantile registers are kept and open to public inspection, and paying an admission fee and an annual registration fee.

Time bargains in prohibited securities or produce, and all time bargains between parties not being both registered in accordance with the above-mentioned requirements, are void, as well as any contracts of agency or partnership with reference to any such time bargains. It is also provided that time bargains of the first-mentioned kind may not be effected through any official

broker, or referred to in any printed list of quotations (*Börsengesetz*, §§ 48-69).

Effect of German legislation on business.—The effect of these provisions as regards trade in produce—more especially corn—has been partly to decentralise business by withdrawing it from the great markets for time bargains to provincial places in which business in specified goods is transacted, which in several respects is an advantage; but it also appears that a great part of the business in question has been driven away from Germany altogether. This may, however, in part be due to the spirit of non-compromising opposition with which the act was met by the traders concerned. Several means of evasion have been attempted, but their legality is disputed. It is clear that the act has not stopped or hindered speculation, for which there are always so many channels open that the obstruction of one or two must of necessity be ineffective; but the restriction of speculation was not the principal object of the act, which, especially as regards corn, was intended to promote a greater steadiness of prices, on the assumption that fluctuations must be more violent as long as time bargains are allowed, as these may be entered into to an unlimited extent, whilst business in specified goods is naturally restricted to the stock of goods in existence. The time during which the act was in force has been too short to allow any reliable conclusion to be drawn as to its effectiveness in this respect, but it seems probable that a prohibition extending to one country only cannot have a permanent influence on prices. As regards stock-exchange transactions, the effect has been to divert the speculation from time bargains to cash business with borrowed money or borrowed securities, which affords exactly the same facilities for gambling transactions as business in time bargains.

[See *Börsen-Enquête-Kommission: Stenographische Berichte*, with reference to answers to questions 2-9 (and see the admirable summary of the answers in the index); *Börsen-Enquête-Kommission: Sitzungs-Protokolle* (particularly pp. 241-367); see also the articles "Börsengrochäfte," "Zeitgeschäfte," "Börsenwesen" (1st supplementary volume), "Börsengesetz" (2nd supplementary volume), in Conrad's *Handwörterbuch* and Professor Weber's articles in Goldschmidt's *Zeitschrift für Handelsrecht*, vols. 43-45.] E. S.

TITHES.

General Statement, p. 543; Tithe Commutation Act 1836, p. 545; Terms of Commutation, p. 545; Impropriated Tithe, p. 545; Incidence of Tithe, p. 545.

TITHES were originally free-will offerings, but gradually became compulsory, first by church law, afterwards by statutes. Much of the law concerning them was the growth of practice sanctioned by the courts. The earliest authentic mention of them, as customary in England, seems to be in a document of the end of the 7th century (Haddan and Stubbs, *Councils*, iii. 191, 203). Neither the contested points of date and of the tripartite division, nor the process by which a large proportion of tithes was acquired by religious houses or impropriated by laymen, need be dealt with here; but the fact that a large part of the country has in consequence been for many centuries tithe-free is of real economic interest. Pope Pascal II. (1099-1118) exempted all the lands of abbeys, monasteries, etc., from the payment of tithes; Adrian IV. (1154-1159) restricted the exemption to Cistercians, Templars, and Hospitallers; Innocent III. (1198-1216) added the Præmonstratensians; the Lateran council of 1215 ordained that only lands held before that date by these four "privileged orders" should be tithe-free. At the dissolution of the monasteries the bulk of the monastic lands made over to the king by 31 Hen. VIII. c. 13 remained, or became, by statute exempt from tithes; but the lands of houses dissolved before that year, 1539, were made subject to tithes if they had been free before. Forest land in the hands of the crown or its lessee, but not of its feoffee, were also free from this charge.

Tithes were the tenth part, free of the cost of cultivation, but not of collection, of the yearly increase of the land "by the act of God," not of the substance of the ground except in a few customary and local instances. They were of three kinds—predial, arising immediately from the soil; mixed, arising from things nourished by the soil; personal, arising from the profits of industry. Predial tithes were paid by grain of all sorts, hemp and flax, hay, fruit, herbs, saffron, acorns (under certain conditions), rushes, wood of less than twenty years' growth, and, in the case of some non-timber trees, even of older growth; mixed tithes were of colts, calves, lambs, wool, pigs, fowls or their eggs (not both), ducks, geese (but perhaps not turkeys), milk or cheese (not both), pigeons, and bees (in the form of wax and honey). Personal tithes were the tenth of the *clear* profit of tradesmen and artificers, with the tithes of mills and of fishing which were reckoned as personal—in the latter case the tenth fish was usually commuted for a small sum of money. Only in a few exceptional instances was tithe paid on mines, quarries, limekilns, and salt; and it is only in the city of London and a very few other towns that houses and building lands have been subject to tithes until commuted by the City of London Tithes Act of 1879 (42 & 43 Vict. c. 176).

Corn, hay, and wood composed the great or rectorial tithes; all others belonged to the class of small or vicarial tithes. In 1836 the former were usually reckoned at from 5s. to 7s., the latter at from 3s. to 4s. an acre.

That disputes should arise was not wonderful. A claim put forward by a parson just before the Commutation Act of 1836 to the tithe of turnips grown to feed sheep, when tithe would be paid later on of the same sheep in the form of lambs and wool, illustrates one side of the question (*Parliamentary Debates*, 1835); but it is pretty certain that the clergy suffered oftener than the farmers from unfair treatment. Vexatious claims, unjust resistance to just claims, the inconvenience caused to the clergy by their being obliged to receive their dues in kind, and to collect them themselves into their tithe-barns off the different farms in the parish, often produced most undesirable friction between tithe-owners and tithe-payers, between pastors and their flocks. In later times, as the pressure of population increased the value of land, and as enclosures became common, such a charge upon cultivation no doubt hindered the outlay of capital upon the land, and thus economic argu-

ments were added to social and moral objections to tithes in kind, or even to tithes at all. Many enclosure acts, especially after 1750, included clauses for endowing the parson with glebe land, apparently usually a seventh or eighth part of the land enclosed, in lieu of tithes (*Parliamentary History*, xxii. 47, for debate in Lords on such a clause, 1781); one reason for the change being that, after enclosure, corn land, if titheable, was in danger of being converted to pasture which was tithe-free. Another method of remedying the inconvenience of payments in kind was by voluntary agreement between the parties to commute the tithes into

AVERAGE PRICES FOR SEVEN YEARS.

Per London Gazette.	Wheat per imperial bushel.	Barley per imperial bushel.	Oats per imperial bushel.	Value of tithe rent charge of £100.
	s. d.	s. d.	s. d.	£ s. d.
To Christmas *1835* on 9th Dec. 1836	7 0¼	3 11½	2 9	100 0 0
„ *1836* „ 13th Jan. 1837	6 8½	3 11½	2 9	98 13 9¾
„ *1837* „ 12th „ 1838	6 6¾	3 11¼	2 8¾	97 7 11
„ *1838* „ 4th „ 1839	6 6¼	3 9¾	2 8	95 7 9
„ *1839* „ 3rd „ 1840	6 9	3 11¼	2 9¼	98 15 9½
„ *1840* „ 8th „ 1841	6 11¾	4 1	2 10¾	102 12 5½
„ *1841* „ 7th „ 1842	7 3¾	4 2	2 11¼	105 8 2¾
„ *1842* „ 6th „ 1843	7 7½	4 1¾	2 10½	105 12 2¼
„ *1843* „ 5th „ 1844	7 7¾	4 0½	2 9½	104 3 5½
„ *1844* „ 3rd „ 1845	7 7	4 1¾	2 9	103 17 11½
„ *1845* „ 2nd „ 1846	7 4	4 1¾	2 9	102 17 8¾
„ *1846* „ 1st „ 1847	7 0½	4 0	2 8½	99 18 10¼
„ *1847* „ 7th „ 1848	7 1¼	4 1¾	2 9¼	102 1 0
„ *1848* „ 5th „ 1849	6 10¼	4 1¾	2 8¾	100 3 7¾
„ *1849* „ 8th „ 1850	6 7½	4 1¾	2 8¾	98 16 10
„ *1850* „ 3rd „ 1851	6 5½	4 0	2 8	96 11 4¾
„ *1851* „ 2nd „ 1852	6 2¾	3 10½	2 7½	93 16 11¼
„ *1852* „ 7th „ 1853	6 0½	3 9½	2 6¾	91 13 5½
„ *1853* „ 6th „ 1854	6 0	3 9½	2 6¼	90 19 5
„ *1854* „ 5th „ 1855	6 0¾	3 7¾	2 6	89 15 8¾
„ *1855* „ 11th „ 1856	6 6	3 8½	2 7½	93 18 1¼
„ *1856* „ 9th „ 1857	6 11¼	3 11¼	2 9¼	99 13 7½
„ *1857* „ 8th „ 1858	7 2¾	4 3½	2 11	105 16 3¾
„ *1858* „ 7th „ 1859	7 4	4 6½	3 0½	108 19 0½
„ *1859* „ 6th „ 1860	7 4½	4 6½	3 1¾	110 17 8½
„ *1860* „ 11th „ 1861	7 4½	4 7¼	3 2	112 3 4¾
„ *1861* „ 10th „ 1862	7 0¼	4 7¼	3 1	109 13 6
„ *1862* „ 9th „ 1863	6 8¾	4 7½	3 0	107 5 2
„ *1863* „ 8th „ 1864	6 3½	4 5¾	2 11¼	103 3 10¾
„ *1864* „ 30th Dec. 1865	6 0	4 3¼	2 10	98 15 10½
„ *1865* „ 9th Jan. 1866	5 11½	4 2¼	2 9½	97 7 9½
„ *1866* „ 8th „ 1867	6 0¼	4 3	2 9¾	98 13 3
„ *1867* „ 7th „ 1868	6 3¼	4 3¾	2 10¼	100 13 8
„ *1868* „ 5th „ 1869	6 5¼	4 5¼	2 11	103 5 8½
„ *1869* „ 4th „ 1870	6 3½	4 6¼	2 11¾	104 1 0¼
„ *1870* „ 2nd „ 1871	6 4	4 6½	3 0¼	104 15 1
„ *1871* „ 1st „ 1872	6 7½	4 7¾	3 1¾	108 4 0½
„ *1872* „ 7th „ 1873	6 10¾	4 9¼	3 1¾	110 15 10½
„ *1873* „ 6th „ 1874	7 0¼	4 10	3 1¾	112 7 3
„ *1874* „ 5th „ 1875	6 10¾	4 11	3 2¼	112 15 6¾
„ *1875* „ 4th „ 1876	6 6¾	4 10	3 2¼	110 14 11
„ *1876* „ 2nd „ 1877	6 6½	4 9	3 2¼	109 16 11½
„ *1877* „ 1st „ 1878	6 8½	4 10½	3 3¼	112 7 5½
„ *1878* „ 7th „ 1879	6 6½	4 11	3 3	111 15 1½
„ *1879* „ 6th „ 1880	6 3½	4 10½	3 2¾	109 17 9½
„ *1880* „ 4th „ 1881	6 0½	4 8¾	3 2¼	107 2 10½
„ *1881* „ 3rd „ 1882	5 10½	4 6	3 0¼	102 16 2
„ *1882* „ 2nd „ 1883	5 10½	4 4½	2 11½	100 4 9¾
„ *1883* „ 1st „ 1884	5 9½	4 3¾	2 10½	98 6 2¼
„ *1884* „ 6th „ 1885	5 4¾	4 1¾	2 9	93 17 3
„ *1885* „ 5th „ 1886	5 1¾	3 11¾	2 8½	90 10 3½
„ *1886* „ 4th „ 1887	4 11	3 10	2 7½	87 8 10
„ *1887* „ 3rd „ 1888	4 8½	3 8¼	2 6½	84 2 8¾
„ *1888* „ 1st „ 1889	4 5½	3 7½	2 5	80 19 8¾
„ *1889* „ 7th „ 1890	4 2¼	3 6¼	2 4¼	78 1 3½
„ *1890* „ 6th „ 1891	4 0¼	3 5¾	2 3½	76 3 3¼
„ *1891* „ 5th „ 1892	4 0½	3 5¼	2 3½	75 18 3½
„ *1892* „ 3rd „ 1893	4 0	3 4¼	2 3¼	74 15 2¾
„ *1893* „ 2nd „ 1894	3 11	3 4	2 3¼	74 3 9½
„ *1894* „ 1st „ 1895	3 9	3 4	2 3½	73 13 0½
„ *1895* „ 7th „ 1896	3 7	3 2¾	2 3	71 9 6¼
„ *1896* „ 5th „ 1897	3 6½	3 2	2 2¼	69 17 11½
			61	5976 4 2¾
		General average for the 61 years		97 19 4¾

a corn rent payable in money, or by arranging some other "modus decimandi"; but such agreements had to be renewed with each incumbent, as none could bind his successor.

Tithe Commutation Act of 1836.—A general alteration of the whole system was first made after several attempts by the Tithe Commutation Act of 1836, 6 & 7 Will. IV. c. 71. By this law tithes were converted into a rent charge, a corn rent payable in money calculated on the average tithe paid in each parish during the seven years previous to 1836, and fluctuating yearly in value according to a septennial average of the prices of wheat, barley, and oats. The table on the preceding page (Willich) shows the fluctuations in prices and rent charge since that date.

Personal tithes, except of mills, and the CORN RENTS (*q.v.*) already substituted in some cases, were not touched by the act of 1836; the former have become nearly obsolete, the latter were allowed by 23 & 24 Vict. c. 93 to be commuted into a rent charge in the ordinary way. The tithe on hop grounds, orchards, and gardens was to be specially valued for rent charge upon a seven years' average, with provisions for change of cultivation on such lands and for lands newly cultivated in these ways; and this "extraordinary" tithe, though affected by subsequent laws, still remains a charge upon such lands except where it has been redeemed under the act of 1886, 49 & 50 Vict. c. 54. Power was given in 1836 to the clergy to sell or pull down the now useless tithe-barns.

As tithe rent charge and rent bear no relation to each other, they do not rise or fall together. Between 1836 and 1876, land rental, according to Sir James Caird, rose from 33 to 50 millions, tithes remaining at 4 millions. Of late years, as in the decade ending 1897, rent in many parts of England, especially in the corn-growing districts, dropped more in proportion than tithes. But sometimes with increasing produce the tithes have become greater than the rent, especially on hop lands and where the cost of cultivation is high, as tithes do not share in the expenses of cultivation. In the old poor-law days, however, when labourers' wages were supplemented by the poor rate, tithes, which are subject to rates, did practically bear part of the cost of tillage.

By the Tithe Act of 1891 the liability to pay tithe rent charge was imposed on the owner of land notwithstanding any contract to the contrary between such owner and the occupier. See TEINDS (Scotland).

[Gibson, *Codex Juris Ecclesiastici Anglicani.*—Watson, *Clergyman's Law.*—Phillimore, *Ecclesiastical Law.*—Lord Selborne, *Ancient Facts and Fictions* and *Endowments and Establishments of the Church of England.*—Selden, *Hist. of Tithes.*—Lindwood, *Provinciale.*—Willich's *Commutation Tables.*—Stubbs, *Const. Hist. of England.*—Caird, *Landed Interest.*—*Annals of Agriculture*, vol. xxxii.—Inderwick, *Taxes on Agriculture*, a speech against the extraordinary tithe.—Hansard, *Debates*, 9th Feb. 1836.—Clarke, *Hist. of Tithes* (uncritical and one-sided).—Parnell, *Financial Reform.*—Rogers, *Industrial and Commercial Hist.*, 218.—Cunningham, *Industry and Commerce*, *Modern Times.*—Morris Fuller, *National Review*, Nov. 1886.] E. G. P.

Terms of Commutation.—The average value for the seven years ending with 1835 was taken for wheat, oats, and barley severally. Then it was asked how many bushels of each at cost price would make £33 : 6 : 8, the aggregate to be £100, and in each parish its tithe was fixed at so many of these £100. It worked out thus: wheat, 7s. 0½d. × 94·96; barley, 3s. 11½d. × 168·42; oats, 2s. 9d. × 242·42. These multipliers are the fixed multipliers in use ever since, and each year the three prices are taken for the year to 31st December, then the average prices for the last seven years are multiplied by the above fixed multipliers, and the sum is the T. R. C. for the next year. One effect of the process is that variations in the price of oats count for more than those in barley, and for wheat the least of the three.

As the years 1828-35 showed corn at a higher price than was being obtained on the continent at the time, M'Culloch pointed out that the amount of tithe then laid upon each parish would prove high if foreign corn ever came in, and would tell against British agriculture regarded as a whole, landlords' rents included (as an industrial competitor). This is so from that point of view. But there are reasons, arising out of the details of the apportionments, for holding that the commutation really diminished the share of the owners of the tithes.

Impropriated Tithe.—When the tithe is allotted to some corporation or individual for other purposes than the discharge of the pastoral offices it is said to be either "appropriated" or "impropriated." It is appropriated when the beneficiary is a church body: thus deans and chapters of cathedrals, universities, and colleges (considered as "ancient and religious" foundations and quasi-ecclesiastical), the ecclesiastical commission; it is impropriated when it is due to laymen or laywomen. In former times the appropriating corporation usually supplied the duty by means of one or more of its own members, but vicarial tithes were allotted in some parishes for this purpose, and gradually it became possible to draw the tithes, and neither perform the pastoral duty nor pay for its being done. The prevalence of the title of vicar indicates the extent to which expropriation of the greater tithes was carried. The Tudor legislation was even more expropriating than this would show, for most of what is now clerical tithe was not left with the church purposely, but has arisen from the improvement of lands then waste or of little value.

Much tithe has been extinguished by being exchanged for land or corn-rents or fixed sums, by over 2000 private acts of parliament.

The distribution of the tithe of England and Wales at 1896 values is: incumbents, £1,930,000; appropriators strictly, *i.e.* ecclesiastical bodies doing work for the church, £544,000; lay impropriators, with no work attached, £613,000; colleges and schools, Oxford and Cambridge, Eton, etc., open to all comers, £157,000.

Incidence of Tithe.—There is a good discussion of this in M'Culloch's note xxvii. to his edition of the *Wealth of Nations.* Adam Smith had simply laid it down: "Taxes upon the produce of land are in reality taxes upon the rent; and, though they may be originally advanced by the farmer, are finally paid by the landlord." Ricardo has said that the consumer is affected by increase of price so long as resort has to be made to land which will only give profits plus wages; the tithe in such case must come out of an enhanced price. M'Culloch points out (1) that such a rise in price would diminish consumption. In order to prevent this, landlords would reduce rents, and probably the actual result would be that part of tithe would be raised in one way and part in the other. (2) That if there is any land untithed it will not have to raise its prices, and the tithed land will have to reckon with this. (3) If there is admission of foreign produce it will be in a similar position.

As to (2), in M'Culloch's day there was one-third of land, according to rental-value, tithe-free; and this proportion

has gone on increasing. But as to (3), we now import four-fifths of our wheat, immense quantities of substitutes, and even of meat and vegetables, and therefore the tithed land is only a fraction of the whole in the circle of agricultural competition; prices are therefore determined apart from it, practically, and the tithe is definitely a charge on rent. In so far as land-rents are returns for capital invested, and are not monopoly-rents, tithe acts as a charge upon agriculture as an industry.

Parliament has now fixed a two-thirds limit as a proportion to annual rent of lands beyond which tithe cannot be claimed, *i.e.* on agricultural lands. A. C.

TITHING. Originally perhaps a tenth of the hundred, but no proof remains that this proportion was strictly maintained. Tithings are still found in Somersetshire and Wiltshire. C. H. Pearson (*Middle Ages*, i. 250; and *Historical Maps*, p. 59) remarks that the hundreds of Devon usually contain ten parishes, and argues that the parish corresponds to an old tithing or cluster of tithings (see TOWNSHIP).

[Vinogradoff, *Villainage in England*, p. 363.—Stephen, *Com. on Laws of England*, i. 126.]

R. H.

TOCQUEVILLE (1805-59), ALEXIS CHARLES HENRI CLEREL DE, was born at Paris. His father, the Comte de Tocqueville, became prefect of Metz and other towns under the restored Bourbon monarchy, and rose to be a peer of France. His mother was a granddaughter of M. de Malesherbes, the celebrated lawyer who defended Louis XVI. at the bar of the convention, and perished in the reign of terror. Educated partly at home and partly in the college of Metz, his literary talent distinguished him early. In 1826 and 1827 he made a long tour in Italy and Sicily, where he first exercised his faculty for the minute study of political and social phenomena. On returning to France at the age of twenty-one, he was nominated *juge auditeur*. But the narrow sphere of the duties of this office was intolerable to a mind so active and independent. Tocqueville was a man of strong though moderate political convictions, equally averse to revolution and to despotism, and loyal to monarchy if the monarch were sincere in the observance of the constitution. As Charles X. was incapable of understanding constitutional freedom, Tocqueville acquiesced in the revolution of 1830. But doubtful of the future, and convinced that the progress of democracy was irresistible, he resolved to travel in America and study the institutions of that typical democratic commonwealth, the United States. Together with his colleague and intimate friend, Gustave de Beaumont, he obtained leave of absence in order to examine some of the prison systems in force in that country. Tocqueville and Beaumont reached New York in May of 1831. They spent a year in travel and observation, varied by fatigues and hardships, peculiarly trying to Tocqueville's delicate constitution. It was this journey, in which every moment and every opportunity was utilised to the utmost, which supplied the bulk of the materials for *De la Démocratie en Amérique*. Soon after their return Beaumont forfeited his official position by an act of conscientious firmness, and Tocqueville, sympathising with his friend, tendered his own resignation. Left the full use of his leisure, he wrote, in the two following years, two volumes of his great work. The manuscript was declined by the first publisher to whom it was offered, but the book achieved an immediate and universal success. Everybody read it, and all the most competent critics praised it. Soon after its publication he married Miss Mary Motley, an English lady, who proved a most affectionate wife to a most loving husband. Tocqueville had many English friends, and understood England far better than most Frenchmen. In 1840 he sent forth the two concluding volumes of *De La Démocratie en Amérique*. He had been returned to the chamber of deputies in the preceding year by the department of La Manche. During the next nine years he spoke and voted as a member of the constitutional opposition. He regretted the revolution of 1848, but thought himself bound to do what he could to promote the stability of the republic when once proclaimed. He held the post of minister of foreign affairs for some months in the year 1849. He was among the prisoners whom Louis Napoleon confined in the castle of Vincennes on the evening of the 2nd December 1851. Thenceforward Tocqueville retired from public life to his country house in Normandy, and to literature. He now commenced his second great book, *De l'Ancien Régime et la Révolution*. The first volume appeared in 1856. It was received with unanimous applause. So high did Tocqueville's reputation stand that at the end of a visit to England, which he made in the following year, a ship of the royal navy was placed at his disposal to convey him to France. But his health, never robust, now began to give way. Symptoms of consumption obliged him to quit Normandy for Cannes, where, after a winter of suffering, he died.

Tocqueville's collected works fill nine volumes, but his fame rests almost entirely upon *De La Democratie en Amérique* and *De L'Ancien Régime et la Révolution Française*. These attest his wonderful gifts as a student of institutions. In Tocqueville were happily combined the appetite for facts and the habit of meditation. A most accurate observer of contemporary life, and a most indefatigable student of historical records, he was constantly accumulating materials upon which his acute and restless intellect was for ever at work. In spite of the immense knowledge which they embody, his books impress the reader rather as historical reflection than as history. A cultivated and sympathetic man of the world rather than a lawyer or antiquarian, he never forgot that institutions are the outcome of national character and circumstances. "It is the ideas and passions of

men, not the mechanism of the laws, which are the moving force in human affairs." He combined earnestness with impartiality. His experience of political life gave him new insight, but did not turn him into a sceptic or a partisan. His great qualities were accompanied with some inevitable defects. Possessing in the highest degree the logical faculty characteristic of Frenchmen, he was prone to refer all the peculiarities of a given epoch to one dominant principle such as the love of equality. Influenced by his own experience, he sometimes ascribed, let us say to democratic society in general, tendencies which were peculiar to Frenchmen. Cautious as he was in predicting, he made several predictions which have been falsified. But these are comparatively small blemishes on works so vast in conception and so solid in execution as those of Tocqueville. Valuable for their wealth of knowledge, their admirable arrangement, and their severely beautiful style, *De la Démocratie en Amérique* and *De l'Ancien Régime et la Révolution* are above all valuable for the stimulus which they give to reflection. Their formative impulse has been felt by minds the least in sympathy with Tocqueville and the least capable of resting in his conclusions. In private life Tocqueville was simple, upright, and lovable. In public life his delicate health, sensitive temperament, and rigorous sincerity, denied him any large measure of success.

[*Œuvres Complètes d'Alexis de Tocqueville*, including the sketch of his life by M. de Beaumont and many letters.—*Souvenirs d'Alexis de Tocqueville par le Comte de Tocqueville.—Correspondence and Conversations of Tocqueville* with N. W. Senior, ed. 1859, vol. ii.—J. S. Mill, *Dissertations and Discussions*, vol. ii. ed. 1859, pp. 1-83; *Autobiography*, ed. 1873, p. 191.] F. C. M.

TOKEN-MONEY. See MONEY.

TOKENS, HISTORY OF. Jettons or counters were employed early in the 14th century in England for reckonings of many kinds, and gradually passed into common use as small change. A jetton of the reign of Edward III. is extant. There is a statute (9 Edw. III. 2, c. 4) forbidding the circulation of *black money*, which was perhaps made of *billon*, a mixture of copper with a little silver, though some have understood it to mean abbey-pieces or Nürnberg tokens. Certainly in the year 1402 (*Rot. Parl.*, iii. 498 *b*) *signes de plombe* as well as *galey-halpenys* are referred to as current for lack of small change, and Erasmus (*Adagia*, ed. 1629, p. 130) writes, about 1510, of the *plumbeos Anglicæ* then current. About 1574 tokens of lead, tin, and even leather, were in use. A leaden one, of Bristol, is extant, struck in 1591, and the same city obtained from Elizabeth before 1594 license to coin tokens; but in 1613 the *Domestic State Papers* (p. 184) refer to the abuse of tokens, and mention Lord Harrington's patent for farthing tokens of copper. In 1619 the state papers (p. 75) show a patentee for making farthing tokens, complaining of a man who had circulated a leaden issue; and in 1633 some offenders of this sort were pilloried. An allusion again occurs in 1640 (p. 271) to farthing tokens. There had been various efforts made to issue a regal coinage of copper; but they failed, and the irregular coinage really passed current for centuries. Cromwell, just before his death, was preparing to substitute a genuine mint issue, but none of proper value appeared until 1665. This, however, together with a proclamation in 1672, stopped the enormous private issues which had begun in 1648, though one or two towns disobeyed for a time. In Ireland, which had had a copper coinage from the days of Elizabeth, tokens were first made in 1646 and ceased only in 1679. Between 1648 and the cessation, London and Southwark had issued 4044 varieties, the rest of England 7816, Wales 92, Ireland (from 1646) 779, and Scotland 1 (at Dunbar). They were chiefly farthings. The art shown on these coins was of a humble order. Square, octagon, diamond, and heart shapes occur. Several issues were of lead and even of stamped leather.

Neglect of public needs towards the end of the 18th century again led to a great private coinage, beginning with the Anglesea Druid penny in 1787 (not 1784, as commonly stated), and proceeding until, in 1797, the national coinage of copper was begun in earnest. The tokens were, however, not at once stopped, but 25th March 1813, and afterwards 1st January 1818 (the latter by statute 57 Geo. III. c. 46) were fixed as the last days for circulation, except at Sheffield and Birmingham, which places were allowed a few years' grace. Colonial tokens are found of a much later date, and indeed tokens are still used in England in an obscure way. Lack of small change had caused the issue; but the resulting profit had been great, and was not readily surrendered. Before 1800 there had been struck in England 2153, Wales 309, Scotland 245, Ireland 317, and in places not stated 248 varieties. The vast majority were half-pennies; but Birmingham issued a half-crown, and shillings and sixpences were coined in several places. The best Anglesea pennies and some others were excellent in point of art.

[T. Snelling, *A view of the origin of Jettons*, 1769.—Ruding, *Annals of the Coinage.*—J. A. Blanchet, *Numismatique du Moyen Age.*—W. Boyne, *Trade Tokens of the Seventeenth Century*, ed. Williamson, 1891.—J. Atkins, *Tradesmen's Tokens of the Eighteenth Century*, 1892.—J. Y. Akerman, *Tradesmen's Tokens.—Journ. Brit. Archæol. Assoc.*, i. 200.] R. H.

TOLLS, INTERNAL, MEDIÆVAL. See INTERNAL CUSTOMS AND TOLLS.

TOMAN. A Persian gold coin of the standard weight of 52·8 grains of pure gold, equivalent in value to 9s. 4d. sterling.

The toman is rated as equal to ten khrans

(see KHRAN). The currency system of Persia being as follows:—

50 dinars = 1 shahi
20 shahis = 1 khran
10 khrans = 1 toman

The gold and silver coins of Persia are as follows:—

	Weight.	Fineness.
	grains.	
Gold, toman	52·8	1000
,, half-toman	26·4	1000
,, 2 khrans	10·6	1000
Silver, 5 khrans	355·0	890
,, 2 khrans	142·0	890
,, khran	71·0	890
,, ½ khran	35·5	890
,, ¼ khran	17·7	890

F. E. A.

TONNAGE AND POUNDAGE. Tonnage, sometimes written tunnage, was a duty on every tun of wine imported; poundage an *ad valorem* duty on every pound's worth of merchandise imported or exported. The practice had commenced 1347. The traditional and usual rate at which tonnage and poundage were fixed was—tonnage 3s. per ton imported, and poundage 1s. on every pound's worth of merchandise imported or exported, alien merchants being charged an extra 3s. on every ton of sweet wine, and an extra shilling poundage on tin. The levying of tonnage and poundage by Charles I., without the authority of parliament, was one of the constitutional questions which arose during his reign; it was, however, compromised by a grant being made by parliament of tonnage and poundage for life to the king. After the Restoration the ancient traditional rates were discarded, and the character of the levy was altered, tonnage and poundage being levied at whatever rate parliament considered the exigencies of the time to require (see CUSTOM).

[*Rolls of Parliament.*—Hall, *History of the Customs Revenue.*] A. E. S.

TONTINE. The tontine (name derived from that of the inventor Tonti, an Italian banker of the 17th century) has been defined as "an annuity shared by subscribers to a loan, with the benefit of survivorship, the annuity being increased as the subscribers die, until at last the whole goes to the last survivor, or to the last two or three, according to the terms on which the money is advanced." The principle was in former times frequently applied in Great Britain, sometimes to assist private enterprises, more frequently to raise funds for the government. The speculative element was an attraction to many, the investor staking his money on the chance of his own life or that of his nominee being better than that of his neighbours. An example of the working out of a tontine is given by Mr. John B. Martin in his book, *The Grasshopper in Lombard Street* (London, 1892). In this he mentions (p. 100) that Mr. James Martin, who died 1870, in his ninety-second year, "was the last survivor but one in a government tontine. At the time of his birth, in 1777, during the crisis of the American war of independence, the English government was content to borrow £228,600 (Irish[1]) at 7 per cent, each subscriber contributing £100 per share in his own name or that of his nominee, the principal being forfeited at his death, while the entire interest was divided among the survivors. James Martin was nominated as a subscriber to this tontine." The profits of the survivors in the tontines were sometimes enormous. In the last year of Mr. James Martin's life his half-yearly income from the original investment of £100 amounted to

1870 January dividend for preceding six months. £3875 0 4
,, July dividend for preceding six months . . 3891 10 2

TOOKE, THOMAS (1774-1858), one of the many eminent Englishmen who have brought to bear on the theories of economics and finance the practical experience of business life, was born at St. Petersburg. At an early age he had the management of a large Russian house in London. He took an active part in many public movements, such as the starting of docks, railways, life assurance, etc., and became recognised as a leading authority on all questions connected with commerce and banking. In 1820 he was elected a F.R.S., and in 1853 a correspondent of the Institute of France. Tooke drew up in 1820 the MERCHANTS' PETITION (*q.v.*), which summarised concisely and lucidly the arguments in favour of FREE TRADE (*q.v.*), and was thus the pioneer of the free trade movement on its first appearance within the range of practical politics.

Tooke was the author of *On the Currency in connection with the Corn Trade and on the Corn Laws*, London, 1820, 8vo.—*Considerations on the state of the Currency*, London, 1826, 8vo.—*An Inquiry into the Currency Principles and the connection of the Currency with Price, etc.*, London, 1844, 8vo.—*Thoughts and Details on the High and Low Prices of the Last Thirty Years*, London, 1824, 8vo, afterwards altered and enlarged into *A History of Prices and of the State of the Circulation during the Years 1793-1856*, 6 vols., London, 1838-57, 8vo. This work, of the last two volumes of which Mr. W. Newmarch was joint author, is recognised by M'Culloch (*Literature of Political Economy*, p. 196), while criticising the stress it lays on variation in the supply and cost of corn as opposed to variations in the quantity and value of money as "a standard work, valuable alike to practical and speculative inquirers." In the first four volumes the subjects treated are (1) the prices of corn and the circumstances connected with them in the relations of cause and effect; (2) the prices of produce other than corn; and (3) the state of the circulation, under which head was comprised a review of the whole currency question. Tooke was opposed to the Bank Act of 1844, which he regarded as "one of the most wanton, ill-advised,

[1] £108 : 6 : 8 Irish = £100 English.

pedantic, and rash pieces of legislation" which had ever come within his observation. He pointed out with great clearness the disadvantages which must result from dividing the Bank of England into two departments, and from limiting the country note circulation. He considered the sudden and frequent alteration in the rate of discount to be closely connected with this legislation. It is to be observed that these arrangements were not followed in the German Bank Act of 1875, and that greater steadiness in the rate of interests charged by the *Reichsbank* has resulted during the period of autumnal demand (see arts. AUTUMNAL DRAIN; BANK OF GERMANY). The fifth and sixth volumes contain fresh topics, viz. railways and the railway system, the origin and progress of the free-trade movement; the state of finance and banking in France, and the effect of the new discoveries of gold.

[*Nouveau Dictionnaire d'Économie Politique*, par M. Léon Say et M. J. Chailly, Paris, 1892.—*Ricardo's Letters to Malthus.*] H. E. E.

TOOL.

Tool, p. 549; Tool Rent, p. 549.

TOOL. The difference between a tool and a machine has been long a subject of controversy. Mr. Babbage (*Economy of Machinery and Manufactures*) saw very little difference between them. "A tool," he says, "is usually more simple than a machine; it is generally used with the hand, whilst a machine is frequently moved by animal or steam power. . . . The simpler machines are often merely one or more tools placed in a frame and acted on by a moving power." Dr. Ure was of much the same opinion, and popular writers, like Mr. Samuel Smiles (*Industrial Biography, Iron Workers and Tool Makers*, ch. x.), mostly follow in their wake. On the other hand, it is clear that, whilst a tool may well form part of the mechanism of a machine, it is not itself that mechanism; nor will any number of tools placed in mere juxtaposition be so; and in this connection the definition of a machine by a recent writer, Mr. Alexander B. M. Kennedy (*The Mechanics of Machinery*, p. 2), may be compared with the above. "A machine," says Mr. Kennedy, "is a combination of resistent bodies whose relative motions are completely constrained, and by means of which the natural energies at our disposal may be transformed into any special form of work." Two important characteristics, in which a tool is wanting, emerge from this definition, its potential division into parts, and the alleged circumstance of energy being "transformed," not merely transferred, when applied to move it. The same view is strenuously argued by Karl Marx (*Capital*, pt. iv.). "All fully developed machinery," he contends, "consists of three essentially different parts, the motor mechanism, the transmitting mechanism, and finally the tool" · a machine "is a mechanism that, after being set in motion, performs with its tools the same operations that were formerly done by the workman with similar tools." If these latter views be accepted as being the more correct, it would follow that a tool is an implement for merely transferring energy applied to itself alone, and when combined with other tools "whose relative motions are completely constrained," it becomes part of a machine.

[Charles Babbage, *Economy of Machinery and Manufactures.*—Dr. Ure, *The Philosophy of Manufactures.*—A. B. M. Kennedy, *The Mechanics of Industry*, Macmillan and Co., 1886.—Karl Marx, *Capital*, vol. ii., English translation.—R. W. Cooke-Taylor, *Modern Factory System*, ch. ii.—J. R. M'Culloch, *A Dictionary of Commerce*, article "Tools and Machines."]

R. W. C. T.

TOOL RENT is a name given to the price paid for the use of an artificial instrument of production. In certain industries it has been common to hire out tools and machines to workers at a fixed price, the hirer being sometimes the employer of the workers as well, sometimes not. This has generally happened where the tools or machines were of a complicated construction, and therefore expensive to purchase, and at times or in places where the factory system had not made much way. In the stocking industry, for example, it was, until quite recently, a very common method of production, which prevails to some extent still. The charges in this instance took the name of "frame" rents, and in some cognate instances of "loom" rents, where a loom was the implement supplied. This system has been always open to many abuses. In the *Life of Thomas Cooper* (p. 139) there is a particularly good account of some of these, and a comparative estimate of its merits with those of the factory system, which are worth quoting. "A cotton manufacturer builds a mill," he explains, "and puts machinery into it, and then gives so much per week, or so much per piece of work, to the men and women and boys and girls he employs. But I found that the arrangement in the hosiery trade was very different. The stocking and glove manufacturers did not build mills, but were the owners of the 'frames' in which the stockings and gloves were woven. These frames they let out to the masters or middlemen at a certain rent, covenanting to give all the employ in their power to the said masters. . . . The masters employed the working hands, giving so much per dozen for the weaving of the stockings or gloves, and charging the man a weekly frame rent—which was, of course, at a profit above the rent the master paid the owner of the frame." The prominent position of the middleman was an ominous portent in this transaction, and the worker was subject, it seems, to many direct exactions at his hand. "He had to pay not only 'frame-rent' but so much per week for

the 'standing' of the frame in the shop of the master, for the frames were grouped together in the shops generally, though you would often find a single frame in a weaver's cottage as well. The man had also to pay threepence per dozen to the master for 'giving out' of work. He had also to pay so much per dozen to the female 'seamer' of the hose; and he had also oil to buy for his machine, and lights to pay for in the darker half of the year. . . . But the foul grievance was this: each man had to pay a whole week's frame-rent although he had only half a week's work . . ." and so on, this authority finally giving his verdict in favour of the factory system in preference to this system of production. Tool rent was, however, known long before this time, and is specially mentioned and condemned in an act of parliament of Mary's reign (2 & 3 Phil. and Mary, c. 11), entitled "An Act touching Weavers," where we read of persons guilty of the offence of "engrossing looms into their hands and possession, and letting them out at such unreasonable rents as the poor artificers are not able to maintain themselves, much less to maintain their wives, families, and children." Clearly too it is a system as applicable to agriculture as manufacture, and, indeed, to any occupation in which tools or machinery play a part.

[*The Life of Thomas Cooper written by Himself* (Hodder and Stoughton, 1879).—R. W. Cooke Taylor, *The Modern Factory System*, p. 53.—William Felkin, *History of the Machine-Wrought Hosiery and Lace Manufactures*, Longman, 1867.—J. A. Froude, *History of England from the Fall of Wolsey*, ch. i.] R. W. C. T.

TORRE, RAFFAELE DELLA (17th century), the author of a treatise on exchange, which contains a comparatively liberal opinion, for the time, on the scholastic doctrine of usury.

Torre, while professing the most absolute respect for the principle of gratuitous loans, admits some practical means of evading it. After describing the different forms of exchange, he examines with great acumen the much-debated question of the lawfulness of exchange. He investigates what constitutes profit in different contracts; distinguishing loans from exchange; falls into the error of denying the usefulness of loans, in opposition to which he upholds the advantages of exchange; he therefore admits exchange, provided the price be a fair one, fair by which he means legal. According to him distance of place, and distance of time, the latter absolutely limited to the distance of place, in order to avoid loans in the form exchange, are necessary to constitute exchange.

De cambiis, Genoa, 1641 [Gobbi, *L' economia politica negli scrittori italiani del secolo XVI.-XVII.*, Milan, Hoepli, 1889.] U. R.

TORRENS, ROBERT, COLONEL (1780-1864), soldier and political economist, was born in Ireland, and entered the Marines in 1797, becoming captain in 1806, and major, for services at Anhalt, in 1811. At the close of the great war he was placed on half-pay, and devoted himself to politics and literature, entering parliament, after various unsuccessful efforts, as member for Ashburton in 1831. He entered with great vigour into the scheme for colonising South Australia by means of the South Australian Company, of which he was chairman for several years.

Torrens was a prolific writer on economic subjects; his works took usually the form of letters to the ministry of the day. They lack polish of style, and as a rule are devoid of permanent merit. He was a great supporter of the so-called RECIPROCITY (*q.v.*) system.

The principal works which need be cited are as follows:

The Economists refuted, or An Enquiry into the Nature and Extent of the Benefits conferred by Trade and Commerce, etc., London, 8vo, 1808.—*An Essay on Money and Paper Currency*, London, 1812.—*An Essay on the External Corn Trade*, London, 8vo, 1815; 3rd ed. 1826; 4th ed. 1827.—*A comparative Estimate of the Effects which a Continuance and a Removal of the Restriction of Cash Payments are Respectively Calculated to produce. . .* London, 8vo, 1819.—*An Essay on the Production of Wealth*, London, 1821.—*Letters on Commercial Policy*, Lond., 1833.—*On Wages and Combinations*, Lond., 1834.—*A Letter to Lord Melbourne on . . . Bank reform*, Lond., 1837.—*A Letter to Sir Robert Peel on the Condition of England*, Lond., 1843.—*The Budget, or Commercial and Colonial Policy*, Lond., 1844.—*The Principles and Practical Operation of Sir Robert Peel's Act of 1844 Explained and Defended*, London, 1847; 2nd ed. 1857.

[*Gent. Mag.*, 1864, pt. ii. p. 385. Papers, South Australian Co. Reference in Ricardo's *Letters to Malthus*, 1887.] C. A. H.

TORRENS, SIR ROBERT RICHARD (1814-1884), author of the TORRENS ACT (*q.v.*), was son of Col. Robert TORRENS (*q.v.*). Born at Cork, he was educated at Trinity College, Dublin, and became collector of customs in South Australia in 1851. In 1856 he became colonial treasurer, in 1857 he entered the house of assembly, and on 27th January 1858 carried the act which bears his name, for the transfer of land by simple registration of title. In 1863 he returned to England, and in 1865 entered parliament, where he tried to press his views as to simplifying the transfer of lands.

He wrote *Political Economy and Representative Government in Australia*, 1855; *Reform of the Law of Real Property*, 1858; *Registration of Title of Land*, 1859. C. A. H.

TORRENS ACT. This act of South Australia, which introduced the system of transfer of title to land by simple registration, was the conception of Sir Robt. Richard TORRENS (*q.v.*), and carried into law entirely by his personal exertions. The idea was derived from the registration of shares in ships. Torrens, while colonial treasurer of South Australia, became

deeply impressed with the idea that one of the chief things required for the success of the colony was simplification of the transfer of land: he carried his views in the legislature in 1858 (act 15 of 1857-58). The benefits of the system became rapidly manifest. Victoria was the next colony to introduce it. Now it is the general system adopted in all Australasia. It has also been extended to Fiji, to the Leeward Islands, and to Trinidad in the West Indies.

Under this system the transfer of land is carried on by a government department. Great care must be exercised in registering a title for the first time, but when once a title has been entered in the official registers it cannot be questioned, its registration is sufficient evidence of its soundness, and it can be encumbered, disencumbered, or transferred by simple entry with proper formalities in the register.

It is generally admitted that the system conferred immense benefits on Australia; elsewhere it has usually been received with suspicion, and in an old country the expense of investigating and first registering an old title has prevented the adoption of the plan.

The English Land Transfer Act 1897 (60 & 61 Vict. c. 65) gives powers to the privy council which may be used for the gradual introduction of a compulsory system of registration of title to land in England (see LAND REGISTRATION; MORTGAGES, REGISTRATION OF). C. A. H.

TORRI, LUIGI (1719-1814), a nobleman of Verona. In one of his works, written for a prize competition, set by the academy of Verona in 1789, on trade-gilds, which he won (see MARACHIO), Torri eclectically expounds the reasons for and against the restrictions of freedom in trade, and without giving a decided opinion he says circumstances must be the guide.

Dreading the excesses of liberty, he admits a partial retention of the old systems. His book is a long treatise on trade, and in the last part he considers trade-gilds—though he recognises their abuses, he would retain and reform them by eliminating these. Torri's work is of importance in spite of its vagueness and want of originality; partly because he sums up the reasons given by the first writers of the day against trade restrictions, and particularly against trade-gilds; partly because he echoes the prevailing public opinion on secular institutions, traditionally respected, though their very serious drawbacks were recognised.

Considerazioni sopra i mezzi conducenti alla prosperità delle arti e del commercio, 1793 [see Alberti, *Le corporazioni d' arti e mestieri e la libertà del commercio, etc.*, 1888.—Gobbi, *La concorrenza estera, etc.*, 1884]. U. R.

TORT is the name for a wrongful act inflicting damage on another person and entitling the injured person to pecuniary compensation. In certain cases a party threatened or injured by a tort is also entitled to an injunction restraining the commission of the threatened act or the continuance of a wrongful course. Assault and battery, slander and libel, unlawful imprisonment and malicious prosecution, fraud, trespass and wrongful conversion, are the most obvious instances of tortious acts. A tort may be, but is not necessarily, a criminal offence.

There is one material difference between the liability arising out of a contract and the liability arising out of a tort. The benefit as well as the burden of a *contract* is not affected by the death of either party; but in the case of a *tort* the death of the wrong-doer as well as the death of the person wronged, as a general rule, destroys the liability. Legislation has, however, engrafted various exceptions on this rule, the result being that injuries to property may now be sued upon by the deceased owner's personal representatives, but that personal injuries, not resulting in the death of the person concerned, must be considered as forgiven if the injured party has not instituted proceedings in his lifetime. The representatives of a person whose death has been caused by a wrongful act, neglect, or default have, by virtue of Lord Campbell's Act (9 & 10 Vict. c. 93; and see 27 & 28 Vict. c. 95), a right of action for the benefit of the wife, husband, parent, and children of the deceased.

[Pollock on *Torts*, 4th ed. 1895.] E. S.

TOTAL UTILITY denotes sum-total of satisfactions. The total utility of a commodity to a person is the whole of the pleasure which he derives from its consumption; the total utility of an occupation is the whole of the pleasure derived from the remuneration and in the exercise thereof. The total utility of commodities or actions, less by the attendant total disutility, constitutes their net utility or "net advantages" (Marshall); to maximise which is the end of the "economic man."

The economic measure of the total utility of an object to a consumer is "the maximum sacrifice that he is prepared to make in order to procure it for himself" (Dupont, "De l'utilité," *Journal des Économistes*, July 1853). The same, less by the sacrifice which he has actually to make, in the measure of the net utility. Thus the "relative utility" (Dupuit) or CONSUMERS' RENT" (Marshall) of a purchased commodity is the money-measure of its total utility less by the purchase-money. But it must be remembered that when the "maximum sacrifice" is very great, it can no longer be measured by money (*Principles of Economics*, p. 203, 3rd ed.).

The constructions which are employed to represent the total utility of an individual may be extended to the collective total utility, the Gesammtnützlichkeit of all parties. (In a régime of market.) The proposition that under the conditions of competition economic equilibrium is determined by rendering the collective total utility a maximum consistent with the

given conditions, forms the highest generalisation of economics (cp. Marshall, *Principles of Economics*, Mathematical Appendix, note xiv.).

[MARGIN; PLEASURE AND PAIN; UTILITY. Marshall, *Principles of Economics*, *sub voce* "Surplus," *et passim.*—Auspitz und Lieben, *Theorie des Preises.*] F. Y. E.

TOWN REEVE. See REEVE.

TOWNS.

Towns, Decay of (mediæval), p. 552; Towns, Policy of the (mediæval), p. 552.

TOWNS, DECAY OF (mediæval). From 1433 to 1472 the Rolls of Parliament record the relief from taxation allowed to Lincoln, Great Yarmouth, Andover, Cambridge, Cheltenham, and other "towns, cities, and burghs desolate wasted and destruyed or over gretely empoverished." The cause is not always stated; but fires and incursions of the sea explain the distress in some cases. These facts might seem to be local and accidental were it not that more than sixty years later the statutes show that Canterbury, Cambridge, the Cinque Ports, Exeter, Gloucester, Lincoln, Northampton, Plymouth, Salisbury, Stafford, Yarmouth, York, and many other towns, English and Welsh, were in a semi-ruinous state. Houses were in danger of falling; uncovered vaults and cellars were a peril to passers-by; and streets were choked with rubbish. Seven statutes (26 to 35 Hen. VIII.) attempted a remedy by ordaining that if the owners did not rebuild, or at least wall off the sites, corporations might do so, and in that way acquire the freehold.

The cause of this ruin is not clear. The Wars of the Roses had reduced the population, and the harsh regulations of the craft-gilds respecting apprentices and journeymen were driving the industrial classes to work in villages, as for example around Worstead in Norfolk, in order to escape from burdens and restrictions.

The needs of the state again and the French wars had caused customs dues and taxes to become heavy burdens on merchants and craftsmen; and the manorial system had fallen into ruin, so that liberty, of which towns were at one time the chief centres, could be enjoyed in the country on easy terms. Probably therefore the temporary decay of the towns marks the period of transition which prepared the way for a new era of trade and industrial prosperity. It is possible that the rise of Manchester, Birmingham, and Sheffield about 1550 or later is a sign of revival.

The statutes from 4 Hen. VII. c. 19 to 39 Eliz. c. 1, which forbade the pulling down of towns, relate to places of about 200 inhabitants, and so to rural not urban life.

[Cunningham, *Growth of English Industry.*—C. Gross, *The Gild Merchant*, i. 51, 52.] R. H.

TOWNS, POLICY OF THE (mediæval). During a well-marked period in the economic development of Europe, the whole of the commercial and industrial life of the time was concentrated in, and indeed confined to, the towns; was controlled, assisted, and limited by municipal regulation. This was a phase which began and ended at different times in different countries, but which may be regarded as generally culminating in the 14th and 15th centuries. During this period every town, from that which was hardly more than a village, and was subject to the authority of a strong monarchy, to that which had become an independent city-state, pursued a policy in its spirit and main features identical. Each burgess body avowedly pursued what it regarded as its own material interest as against the burgesses of all other towns, much in the same spirit as is shown to-day by the several nations; and, what we cannot find a modern parallel for, it followed the same self-regarding ends in relation to the inhabitants of the surrounding agricultural areas. It admitted the men of other towns to its markets only on the payment of tolls from which its own burgesses were exempt. It sought to benefit as much as possible by their presence, while preventing them from encroaching on what the burgesses regarded as their own exclusive rights; for instance, it was very common to exclude outsiders or "foreigners," as they were called, from all retail trade as well as from all direct dealings in the town with other "foreigners." Every town expected to obtain for its own consumption the surplus food grown in the country around, and sought to prevent the rustics from engaging in any industry which could compete with its own manufactures. The more powerful and independent the towns were, the more thorough were the measures resorted to, to secure these results. In Germany, where both the imperial and the territorial authorities were weak, the towns were able to proceed to extremes (as *e.g.* in the "staple-right") unknown in England.

But the regulations of the municipal government aimed not only at securing the interests of the town as against the world outside; they aimed at securing what were regarded as the interests of the great mass of the citizens as against members of the burgess body itself. This is especially true in regard to the purchase of victuals, though it is illustrated by regulations with regard to other articles of common use. The intention of the authorities was to bring the producers, *i.e.* chiefly the peasants from the country around, as far as possible into direct contact with the actual consumers. Dealers were not admitted to the market to purchase until after the ordinary householder had had an opportunity to satisfy his needs. None must come between the consumer and producer, and obtain what was deemed an

illegitimate profit by engrossing or by forestalling the market (see FORESTALLERS AND REGRATORS).

When the town governments were gradually compelled to surrender their powers to the territorial or national rulers, the latter very commonly adopted, for larger areas, the policy which the towns had pursued for their own benefit; and thus the mediæval towns contributed one element to what is now known as mercantilism (see MERCANTILE SYSTEM); while in their administrative organisation they furnished at least suggestions towards the formation of the later state bureaucracy.

As to the justification of the town policy, opinions differ—from that of those who regard it as short-sighted and self-defeating, to those who consider it as suited to the larger requirements of the economic stage then reached, though, of course, narrowly selfish in its immediate intent. Opinions likewise differ as to the degree of success with which it was carried out. Probably on both these points insufficient attention has been paid as yet to differences of time and place.

[There is a great mass of material to be found in the works on town history, especially those in German; beginning with K. D. Hüllmann, *Städtewesen des Mittelalters*, 4 vols. 1826, 1827, 1828, 1829. Recent sketches of the whole subject, with numerous bibliographical indications, will be found in Ashley, *Economic History*, vol. i. pt. ii. (Amer. ed. vol. ii.) ch. i., for England; and in K. Bücher's article "Bürger" in Conrad's *Handwörterbüch der Staatswissenschaften*, vol. ii. for Germany. G. Schmoller has sought to place the period of town dominance in its due relation to economic evolution in an opening chapter in his *Studien über die wirthschaftliche Politik Friedrichs des Grossen*, in his *Jahrbuch für Gesetzgebung*, 1884 (trans. under the title *The Mercantile System*, 1896); and in an article "Die Epochen der Getreideverfassung und -politik" in the same *Jahrbuch* for 1896 he has made perhaps the first attempt to distinguish the *nuances* of policy, in the action of the small, middle-sized, and large towns respectively.] W. J. A.

TOWNSEND, REV. JOSEPH (1739-1816), of Clare Hall, Cambridge, and graduate of the university, Edinburgh, practised as a physician, but subsequently took orders. He is mentioned as a popular preacher. He was rector of Pewsey in Wiltshire, and domestic chaplain to the Countess of Huntingdon (see *Gentleman's Mag.*, and, as to his parentage, *Notes and Queries*, 6th series, vol. iii. p. 507). He was well read, a versatile and able writer. He travelled much both in Great Britain and on the continent.

Townsend's *Journey through Spain* reached three editions (1791, 1792, 1814), and may be compared with Arthur YOUNG'S *Travels in France*. He is probably best known for his *Dissertation on the Poor Laws*. He wrote *Observations on various plans offered to the public for the relief of the poor* 1788.

His *Dissertation on the Poor Laws* is an important pamphlet (1st ed., 1786; 2nd, 1787; 3rd, 1817) in the poor law controversy of the 18th century. He argued in principle that the "whole system of compulsive charity" should be abolished. The Poor Laws, "beautiful in theory," "promoted the evils they were meant to remedy, and aggravated the distress they were intended to relieve." Prices had fallen, wages increased as six to four in the past century, and rents doubled, yet the poor rates had doubled in fourteen or even seven years, and in some manufacturing towns 10s. in the £ on the improved rental. Manufacture and agriculture were both alike checked. Further, under better economic conditions, there was less diligence on the part of the poor. This resulted from the rigid system of settlement (see SETTLEMENT, POOR LAW), coupled with the obligation placed on the parish to provide employment. The pauper, and not the independent family, had to be first considered. The former received not merely maintenance but the lesser luxuries also. The general inducements to labour were thus relaxed; and in this and other ways a larger number of persons and a higher class became pauperised. The poor laws were a limited communism. They defeated the natural law under which hunger or the fear of hunger incited to energy and schooled character—for the poor are not stimulated by the higher ambitions. They might, it was true, be compelled to labour, but compulsion was practically impossible. Industrial workhouses were no remedy; nor were workhouses with (what was perhaps called later) "the offer of the house." That was tantamount to a repeal of the poor laws for those who would not enter the "house." But there might be day workshops in parishes to train the poor in industry. The poor rate might be reduced nine-tenths in nine years; horses might be taxed, and oxen, which are cheaper to feed, used instead. Still, in the main, voluntary charity should be relied on and would suffice.

Many of the positions held by Townsend were challenged (cp. *e.g.* RUGGLES, T., *History of the Poor*; EDEN, Sir F. M., *State of the Poor*), yet on the main issues he may be deemed justified. In general, he adopted views similar to those of MONTESQUIEU (*Esprit des lois*, bk. xxiii. ch. 29), Lord Kames, and MALTHUS, but the peculiarity of his position is this; he was profoundly convinced of the social utility of voluntary charity, though opposed to any "certain and constant provision for the poor"—cp. his remarks on the effect of charitable gifts and doles, and also "Industrial Workhouses" in Spain (see *Journey*, I. 218, II. 115, ed. 1815); and hunger, he argued, was the natural penalty for idleness or incompetence. State relief was, he insisted, an apparent substitute for this. Yet it could only take its place if the rule of "the offer of the house" were strictly applied, and this was equivalent to the repeal of the law, so far as the able-bodied were concerned. And to this alternative he was strongly averse on the grounds of experience. Workhouses were ill-classified, badly

managed, etc., and where they had been tried, after a few years, owing probably to change of policy, they had ceased to be a check. Thus he accurately appreciated, though he actually rejected, the policy adopted by the poor-law commissioners in 1834—a policy subsequently enforced and elaborated by central supervision and poor-law orders; and, instead, he proposed various half-measures which could be of no service in the face of the grave social evil of pauperism. His general analysis of it was, however, admitted to be correct. His pamphlet was reprinted in 1817, when "the experience of thirty years had but too fatally verified our author's predictions."

C. S. L.

TOWNSHIP.

Township, p. 554; Township and Towns in the United States, p. 554.

TOWNSHIP.—The *vicus, villata, tún-scipe,* from *tún* the hedge or enclosure of the primitive village. It represents the most elementary form of the organisation of a community, but when it is first historically visible in England it is found that either absolute or conditional ownership of land accompanies it, and that the freeholds and customary holdings of a manor are its ultimate features. Ordericus Vitalis (iv. c. 12) speaks of the township and manor as identical; *villas quas a manendo manerios vulgo vocamus;* but existing records contradict him. J. H. Round has shown, from the *Inquis. Com. Cantabrigiensis,* that a township might include several manors, or might be merely a part of one manor; but in the latter case the township, not the manor, was still the political unit. The HUNDRED was first assessed as a whole; sometimes as a double hundred (200 hides, see HIDE); sometimes as a half or intermediate hundred of 50, 70, or 80 hides, and the apportionment was then made in terms of a 5-hide unit. Rural townships as well as towns were thus assessed at 5 hides, or a multiple of 5 hides. Sometimes grouping was permitted, three townships at 25 hides, or a pair at 7 and 8 respectively; but otherwise there seems to have been little allowance for area or value. A township may be a parish in itself, or may be combined with one or more townships to form an ecclesiastical unit, and the tithing—the area of joint responsibility for civil peace and order—is limited by the same boundaries. Thus the PARISH ultimately became the unit which comprised, and still comprises, all the primary elements of social organisation. (Hence recent legislation has appointed parish councils, not township councils.) On its manorial side there was an elementary jurisdiction in matters civil and criminal with which was associated the view of frankpledge; on the other the matters of common interest, partly ecclesiastical, partly civil, which lay outside the limits of the manorial courts.

The position of the township as a social unit is well illustrated by many entries in Maitland's *Select Pleas in Manorial Courts* (Selden Society).

The headman of the township was the *túngerefa,* and where the township was dependent on a lord, was nominated by him. In free townships the headman would either be chosen by the people or nominated by the king, as is seen in the case of the *burhs,* which retained the essentials of free townships. Bede (*Hist. Eccles.,* ii. c. 16) mentions a *præfectus* or *gerefa* at Lincoln as early as the 7th century. These free townships were the beginning of most of the present market towns.

[Stubbs, *Constit. Hist.,* i. 82, 426.—Vinogradoff, *Villainage in England,* p. 394.—C. H. Pearson, *Historical Maps,* p. 59.—J. H. Round, *Feudal England,* p. 7.] R. H.

TOWNSHIP AND TOWNS IN THE UNITED STATES. The system of survey of the public lands of the United States—a system devised, some say by Thomas Jefferson, others say by Albert Gallatin—has given to the words township and town an importance and peculiar significance in the western states not known elsewhere.

In each state a base line, running due east and west, and a principal meridian north and

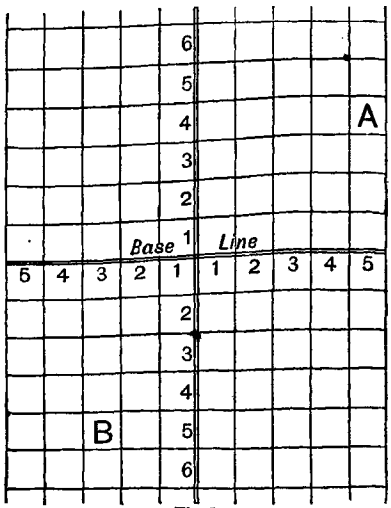


Fig. 1.

south, are established; then, parallel to these, at intervals of six miles, are run other lines, thus dividing the state into "townships" six miles square. Beginning from the intersection of the base line and principal meridian the "ranges" are numbered east and west, the townships north and south. Thus, in the diagram, fig. 1, *A* is township 4 north, range 5 east. *B* is township 5 south, range 3 west, etc.

Between the range and township lines are also run lines one mile apart dividing each township into thirty-six sections, each one mile square (640 acres). The surveyors

mark also in their work the half-mile points, so that the territory is all surveyed into blocks of 160 acres. It requires then only the slightest knowledge of land measurement to divide these quarter-sections of 160 acres each into quarters, and the country is divided into 40 acre blocks. In fact we find in all settled parts of the country that has been thus surveyed, the farms in 40, 80, 160, etc., acre pieces.

The sections in each township are uniformly

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Fig. 2.

numbered in the order shown in diagram, fig. 2, and land, instead of being described by metes and bounds, is simply located as on the map. For example, if block *C* on the diagram, fig. 3,

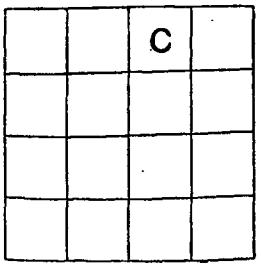


Fig. 3.

is 40 acres in section 22 in the township marked *A*, fig. 1, in *e.g.* Michigan, its description is the north-west quarter of the north-east quarter of section 22, in township 4 north, range 5 east, state of Michigan, or more accurately, range 5 east of the first principal meridian, which runs through Michigan, or as abbreviated N.W. ¼ of N.E. ¼ of sec. 22, T. 4 N.R. 5 E., Mich., and any farmer can find for himself the surveyor's marks locating his land.

The word "township," then, means the territorial division, divided and located as above. When civil government was set up in these states, instead of the towns growing first, and the county and state being aggregations of towns as in New England, the process was reversed. The state was divided into counties, and, under state law, the counties into towns. The territorial townships, however, make convenient boundary lines, so that a county regularly embraces from twenty to thirty townships. The townships being of convenient size for local government, the county is generally divided into local town governments on township lines. As long as the county is thinly settled a town (civil division) may contain two or more townships, and later be divided into two or more towns, each one coincident with a territorial township. The town takes a name, as Marion, Washington, Oakland. The township is described by its number and location.

Though the distinction of meaning given above is properly made, we still find the words often used almost interchangeably (see also LOCAL GOVERNMENT IN THE UNITED STATES). J. W. J.

TOYNBEE, ARNOLD (1852-1883), the second son of Joseph Toynbee, a well-known aurist, was born in London. Soon after his birth, his father removed to a house at Wimbledon in Surrey, where Arnold spent most of his childhood. His early preference for a soldier's career induced his father to send him to be prepared as a candidate for the army examinations. After his father's death ill-health and intellectual ambition led him to alter his plans. He returned home, became a student at King's College, London, and resolved to adopt the bar as his calling. A second change of purpose was due to the same causes which produced the first. He resolved on a life of study, and retired for many months to solitary lodgings in the country, first at Bracknell in Berks, and afterwards at East Lulworth in Dorset. In January 1873 he became a member of Pembroke College, Oxford. Finding himself ill at ease, he migrated two years afterwards to Balliol College, of which Dr. Jowett was then master. Hitherto he had been groping his way towards a suitable life. Now he had found it. Although continued ill-health made university honours impossible for him, he found in Balliol judicious teachers and sympathetic friends who recognised his rare gifts of intellect and character. The first proof of his singular personal influence was seen in the ascendency which he exerted over many able, ambitious, and highly critical fellow-students. At this period of life he was passing through a spiritual crisis. Hitherto he had been chiefly interested in the study of history. He now became possessed with religious emotion. Naturally serious and compassionate, he now felt a new interest in the condition of the poor which became the ruling influence of his after-life. This feeling more than any other led him to concentrate his powers on political

economy as the science which explains the conditions of human well-being. In this sense it may be said that the spirit of charity made him a political economist. Himself a poor man, he had to consider how he could earn his livelihood after taking his degree, a question made difficult for him by bodily weakness and recurring ailments. Fortunately he had made so deep an impression on the master and fellows of Balliol that they entrusted him with the care of the numerous probationers of the Indian Civil Service who were then attached to the college. Soon afterwards he married and was eminently happy in his domestic life. His leisure he gave to political economy, especially to economic history. But zeal for doing immediate good forbade him to devote all his powers to study. Longing to mediate between those who study and those who labour with their hands, he formed the resolution of giving every year a certain number of popular lectures on economic subjects. He felt no unreasonable confidence that he could break through the prejudice which workmen feel for political economy, and convince them that economists do care for their welfare. In the course of the years 1880-1882 he lectured with success at Bradford, Newcastle, and Bolton. But he had fatally overstrained his powers. A zealous college tutor, an indefatigable student, the most active of local philanthropists, he never allowed himself any rest save change of occupation. The fatigue of two lectures, delivered at St. Andrew's Hall in London in January 1883, brought on a fatal illness, and he died of inflammation of the brain.

Toynbee's literary remains were published in 1884. They consist chiefly of a course of lectures on the industrial revolution in England which was to have been elaborated into a history. As they stand these lectures are a mere outline which must be superseded by more elaborate works. Yet they testify to the profound historical research and insight of their author. On the impetus which he gave to the then infant study of economic history in England, Toynbee's claim to a place among English economists must partly be founded. He was, however, singularly free from the besetting fallacy of economic historians, that the mere accumulation of economic facts constitutes political economy. Much as he prized and honoured research, he viewed its results chiefly as material for thought. He desired above all things to understand economic phenomena as a means to social reform. In the same volume were included an immature essay on RICARDO, a few popular addresses, and some brief fragments chiefly on those moral and spiritual themes which were always nearest his heart. But nothing that he has left in writing can convey an adequate sense of the beauty of his character, his rare nobility of nature, and his exquisite kindness.

One of Toynbee's many endeavours to make himself personally acquainted with the poor in order that he might help them more wisely, suggested the foundation of the now famous University Settlement in Whitechapel which bears his name, though founded by others after his death. It has afforded the model of several similar institutions both in London and the United States.

[See Toynbee, *The Industrial Revolution*, etc., 1884.—*Progress and Poverty, a Criticism of Mr. Henry George.*—Milner, *Arnold Toynbee: A Reminiscence.*—Montague, *Arnold Toynbee.*—*Johns Hopkins University Studies.*—Price, *A Short History of Political Economy in England*, which contains an admirable estimate of Toynbee as an economist. For a criticism see Cossa, *Introd. to the Study of P. E.*] F. C. M.

TRACY, DESTUTT DE. See DESTUTT DE TRACY.

TRADE.

Trade, p. 556; Trade Coins, p. 557; Trade Disputes, Law as to, p. 558; Trade, Foreign, Regulations of (to time of Commonwealth), p. 559; Trade, Large and Small, p. 561; Trade Mark, p. 562; Trade Name, p. 563; Trade, Revival of, p. 563.

TRADE is the occupation or business of buying and selling commodities. It is commonly divided into *foreign* and *domestic*, and *wholesale* and *retail* (see RETAIL AND WHOLESALE). In ordinary use the term is but little distinguished from commerce, except that the latter connotes the idea of the circulation as well as the exchange of products. In another direction it is often used in close conjunction with manufacture, without any very clear distinction being drawn between them, as when a manufacturer, *i.e.* a producer, is said to be "engaged in trade." In this case it must be always understood that the manufacturer is one who produces for sale (see MANUFACTURE). By 22 Geo. III. c. 82, a BOARD OF TRADE for Great Britain was established "for the consideration of all matters relating to trade and foreign plantations," and definitely constituted four years afterwards (1786). The members of this board, which is a committee of the privy council, include a president and vice-president, the first lord of the treasury, the three principal secretaries of state, and other great officers; but in practice the president and vice-president have had the direction and management of it from the first. The vice-president of the board of trade ceased to exist in 1867, but since that time there has existed the office of the secretary. Many of its early functions have been since transferred to other departments of government, as the colonial office. On the other hand, several new duties have been imposed upon it; the supervision of canals and railways, harbours and lighthouses; the superintendence of the registration of trade marks, patents, and designs; the control of weights and measures; the direction of bankruptcy proceedings; and the registration and winding up of companies; increased responsibilities in regard to merchant shipping, etc. In 1832 a department was created for

collecting and arranging statistical information for the use of parliaments, and more lately a labour department, for circulating information on industrial subjects.

The trade, both home and foreign, of the United Kingdom is enormously vast and complex. Our imports and exports, taken together, are estimated, according to Lord Farrer, "to be nearly one-fourth the foreign trade of the whole world; and if the trade carried on with English capital between foreign countries were included, our foreign trade would be found to amount to much more." We are the greatest of brokers also, and carriers and money-lenders. "Good statisticians estimate our investments abroad at not much less than £2,000,000,000"; . . . and our ocean trade "is two-thirds or more of the ocean trade of the whole world." "The value of our ships is estimated to exceed £100,000,000; the amount of cargoes afloat under our flag at any given moment is very much larger; and the property covered by it in the course of a year is probably not less than £1,000,000,000." Of our domestic trade the same authority says, "The aggregate value is not given in any official statistics."

[T. H. Farrer, *The State in Relation to Trade*, English Citizen Series (Macmillan, 1883).—H. D. Trail, *Central Government*, same series.—R. W. Cooke Taylor, *Introduction to a History of the Factory System*, ch. i.] R. W. C. T.

TRADE, BALANCE OF. See BALANCE OF TRADE.

TRADE, CHAMBERS. See CHAMBERS OF COMMERCE.

TRADE COINS. For a very long period, probably from the earliest times of the trade between Europe and the East, a large part of the exports from eastern countries has been paid for by the import of coin. This has been due partly to the backward condition of those countries in regard to coinage, but chiefly to the absence of a desire for other western products.

The coins thus acclimatised have been chiefly three—the Spanish DOLLAR, or CAROLUS, the Mexican DOLLAR, and the MARIA THERESA, or Levantine DOLLAR (see also DOLLAR). The Spanish dollar, or Carolus, sometimes called the "pillar dollar," from the two pillars, said to represent the Pillars of Hercules, on the reverse, is no longer in use in Spain, but was still coined there till quite recently, for use in the Spanish West Indies and the Philippines, within which limits it was not strictly a "trade coin," but the currency of the colonies. For many years, however, it has been known in China and the Malay Peninsula, and was at one time preferred there to all other coins, but having varied considerably both in weight and fineness, it has gradually been supplanted, in China at least, by the Mexican dollar. It still holds the field in the interior of the Malay Peninsula, and in other countries more nearly adjacent to the Philippines.

The Mexican DOLLAR was originally coined as an exact reproduction, in weight and fineness, of the Spanish dollar, namely 8½ dollars to the Castilian marc of silver ⁹⁄₁₀ fine. This corresponds to 417·79 grains troy 902·7 fine, and although at one period the Mexican dollar varied somewhat, it has for more than half a century now been very close to the standard, and has thus almost entirely supplanted the Carolus in the trade of Hong Kong and the other treaty ports of China. For circulation the coins were formerly stamped with the "chop" or mark of one of the native merchant-houses, but latterly "chopped" dollars have declined in favour, and they are now generally circulated as imported. These dollars are still the standard coin of Mexico, but the greater part of the production of the mints there is exported either through the Mexican Pacific ports and San Francisco, or through London to Hong Kong, where they usually command a premium of 4 or 5 per cent over their melting value, the coinage charge in Mexico being 4·41 per cent. In the seven years 1889-1895 the silver dollars coined in Mexico were $181,712,582, of which $149,197,021 were exported. Mexican dollars were formerly sent to Japan in large quantities, chiefly for use in the balance of trade between that country and Korea, where they are still much used, and form the basis of account.

For Indo-China the Paris Mint coins PIASTRES to supersede Mexican dollars. These were formerly the same as the U.S. "trade dollar," viz. 420 grains, 900 fine, but they are now coined only weighing 416·67 grains.

Several attempts have been made to supersede the Mexican dollar in the China trade, but hitherto without success. A British mint was established in Hong Kong in 1864 for this purpose, but it was closed in 1868, partly owing to the expense incurred, but mainly because it was found impossible to overcome the prejudice in favour of the Mexican dollar. In 1895 this last-named coin was, by order in council, made the standard for the colony; but it was at the same time decided to establish a new British silver dollar, to be coined at one of the mints in British India, for use in the Straits Settlements, in Hong Kong, Labuan, and other eastern colonies.

Upon the closing of the Hong Kong mint, the coining plant was bought by Japan, and, in 1871, a new system of coinage was adopted by that country founded upon the YEN, which is practically the same as the Hong Kong dollar, namely, 416 grains of silver 900 fine.

The United States, in 1873, coined a "trade dollar," in the hope of creating a market for the produce of their mines by supplanting the Mexican dollar. With this view the coin was made slightly heavier, viz. 420 grains; but the attempt was unsuccessful, and the coinage was abandoned, as to large quantities, in 1878, and entirely in 1883, up to which time $35,965,924 had been coined, of which $28,778,862 had been exported. Those remaining in the States were redeemed and melted under act of 3rd March 1887.

The Austrian Maria Theresa, or Levantine dollar, is heavier than either of the abovementioned coins, but is much lower in quality, and contains a less amount of pure silver. It is still coined by the Austro-Hungarian mints,

bearing date 1780, but is intended solely for export, being no longer a legal coin within the country. It is used chiefly in Africa—in Zanzibar, and Abyssinia, and other places on the east coast; on the west coast, in the Niger country and other parts; and it also finds its way through Morocco to various countries of North Central Africa. Previous to recent reforms in Egypt, Maria Theresa and Carolus dollars circulated largely there, but this was scarcely as trade coins. They were used, with still larger quantities of British sovereigns, because of the scarcity and badness of the native currency. They have now been almost driven out of the country. In Madagascar the Mexican dollar once circulated largely, but it is now no longer legal there.

The following are the weights and fine contents of the dollars above referred to :—

	Weight.	Fineness.	Fine Silver.
	Troy grs.		Troy grs.
Carolus—standard	417·79	902·7	377·17
,, actual	413·7 to 416·	892· to 896·	369· to 372·7
Mexican	417·79	902·7	377·17
Hong Kong	416·	900·	374·4
British	416·	900·	374·4
U.S. "Trade"	420·	900·	378·
Maria Theresa	433·09	833·3	360·76

The ancient Dutch guilder was formerly much used throughout the islands and peninsulas of Southern Asia, but is now only used in Java and Sumatra, in which places it is not a trade coin, but the currency of the colony.

GOLD DUCATS (see DUCAT) are also coined in several European countries for use as trade coins. Holland coins trade ducats and double ducats of gold ·983 fine; whilst in Russia, up to 1869 at least, "ducats of Holland" were coined of fineness ·9791; Russian gold currency and the Russian ducats now coined being only 916·6 fine. Austria coins gold ducats, and double ducats, for use only as trade coins. It appears probable that these coins were originally struck as well for international trade on the continent as to facilitate trade with Africa and the east at a time when the ducats of Venice were widely known.

These coins compare in value as follows :—

	Weight.	Fineness.	Fine Gold.
	Troy grs.		Troy grs.
Russian Ducat	60·593	916·6	55·543
Russian "Ducats of Holland"	53·853	979·1	52·731
Holland Ducat	53·921	983·	53·004
Austrian Ducat	53·866	986·1	53·112

(See also art. TOKENS, HISTORY OF.) R. W. B.

TRADE DISPUTES, LAW AS TO. The law as to trade disputes is best stated under two separate heads, viz.: 1. Disputes between individual employers and individual workmen. 2. Disputes between combinations of workmen and individual employers or combinations of employers. The two classes of disputes are often closely connected together; if, for instance, a workman, by arrangement with other workmen employed in the same trade, leaves his employment, there is a dispute between the individual employer and the individual workman, but it really arises out of the dispute between a class of workmen and a class of employers.

1. Disputes between individual workmen and individual employers are, of course, within the jurisdiction of the ordinary courts, but legislation has created additional tribunals, and provided additional remedies in respect of claims arising out of such disputes. A series of statutes beginning with 20 Geo. II. c. 19, ending with 10 Geo. IV. c. 12, gave the justices of the peace summary jurisdiction in respect of such disputes, and power to order workmen to be imprisoned for breach of contract. The law remained in this state till 1867, when, on the recommendation of a committee of the House of Commons, an act was passed introducing material alterations in favour of the workmen, which act was repealed in 1871 by legislation still more favourable to the interests of workmen. The law on the subject is now regulated by the Conspiracy and Protection of Property Act 1875, and the Employer and Workman's Act 1875. The first act repeals all former enactments, making breaches of contract criminal offences, and imposes criminal punishment for breach of contract in the following cases only: (*a*) in the case of a workman employed in an undertaking for the supply of gas or water to a town, who has reason to believe that the probable consequences of his breach of contract will be to deprive the inhabitants of their supply of water or gas; (*b*) in the case of a person wilfully and maliciously breaking a contract of service or hiring, who has reason to believe that the probable consequences of his breach of contract will be to endanger the life or health of any person, or to cause injury to valuable property.

The Employer and Workman's Act of 1875 facilitates the procedure and prevents oppressive proceedings; it gives discretionary powers to county courts with reference to disputes between employers and workmen, which go much beyond their ordinary powers; thus the court may, "if, having regard to all the circumstances of the case, it thinks it just to do so," rescind any contract between employer and workman "upon such terms as it thinks just," and it may also, instead of awarding damages, order performance of the contract of service. In cases involving claims not exceeding £10, a court of summary jurisdiction—that is to say, two justices or one stipendiary magistrate—may adjudge between employer and workman; the proceedings in such a case being held to be civil and not criminal proceedings.

In many continental countries special tribunals, wholly or partly composed of laymen, exist for the decision of disputes between employers and workmen. Thus in France and Belgium, the so-called *Conseils de prud'hommes*, composed of

members of the trade from which disputes are brought to them—half of them being employers, the other half workmen,—exist in many towns, after having been first introduced in Lyons in the year 1806. In Germany a statute, passed in 1890, has introduced trade tribunals (*Gewerbegerichte*), composed of a chairman, a deputy chairman, two employers, and two workmen; they must, in the first instance, try to induce the parties to compromise; and if that attempt fails, adjudge in the dispute in the same manner as an ordinary court of first instance.

2. The legislation as to disputes between combinations of workmen and employers is partly of a repressive, and partly of a conciliating nature; but the repressive legislation has been to a great extent repealed. Its development, together with the development of the doctrine of "conspiracy" in its application to combinations for the purpose of improving the wage of workmen, is admirably described in Stephen's *History of the Criminal Law*, vol. iii. pp. 202-226, and summed up by the same writer as follows: "First, there is no law at all, either written or unwritten. Then a long series of statutes aim at regulating the wages of labour, and end in general provisions, preventing and punishing as far as possible all combinations to raise wages. During the latter part of this period an opinion grows up that to combine for the purpose of raising wages is an indictable conspiracy at common law. In 1825 the statute law is put upon an entirely new basis, and all the old statutes are repealed; but in such a way as to countenance the doctrine about conspiracies in restraint of trade at common law. . . . In 1871 the common law doctrine as to agreements in restraint of trade being criminal conspiracies is repealed by statute. But . . . the doctrine of a conspiracy to coerce or injure is so interpreted as to diminish greatly the protection supposed to be afforded by the act of 1871. Thereupon the act of 1875—being the Conspiracy and Protection of Property Act 1875 quoted above—specifically protects all combinations in contemplation or furtherance of trade disputes . . . and provides positively that no agreement shall be treated as an indictable conspiracy unless the act agreed upon would be criminal if done by a single person."

By the side of the repressive legislation there is already at an early date an attempt to provide machinery for the purpose of conciliation, and in 1824 a consolidation act was passed, repealing the anterior legislation on the subject (5 Geo. IV. c. 96), but this act as well as the Councils of Conciliation Act 1867, and the Arbitration (Masters and Workmen) Act 1872, remained ineffective, and was, together with the last-mentioned statutes, repealed by the Conciliation Act 1896. This act enables the board of trade, in the case of any difference existing between an employer or any class of employers and workmen—(*a*) to inquire into the circumstances of such differences; (*b*) to take steps for bringing the parties together; (*c*) to appoint a person or persons to act as conciliator, or as a board of conciliation; (*d*) on the application of both parties to appoint an arbitrator. The act also provides for the registration of boards of conciliation and for the furnishing of periodical returns to the board of trade by such boards, and gives power to the board of trade to aid in the establishment of boards of conciliation for districts or trades, in respect to which adequate means do not exist for having disputes submitted to conciliation.

In France an act for the settlement of trade disputes between whole classes of workmen and employers was passed in 1892. It provides that the justice of the peace of the district shall convene representatives of the contending parties, and appoint an umpire for the settlement of the dispute, unless they can be induced to agree to a friendly arrangement, or in the selection of arbitrators, or of an umpire. In Italy an act was passed on the same subject in 1893. In Germany the act of 1890 (mentioned above) gave power to the trade tribunals (see above) to act as boards of conciliation, but the provisions in question do not seem to have had much practical effect.

[See the statutes referred to above; also Macdonell, *Law of Master and Servant.*—Ramsey, *Handbook for Employers and Employed.*—And see Professor Stieda's articles in Conrad's *Handwörterbuch, s.v.* "Einigungsämter"; "Gewerbegericht," and the same author's article "Einigungsämter" in the supplemental volume (see CONCILIATION, BOARDS OF; CONSEILS DE PRUD'HOMMES; PRUD' HOMMES.] E. S.

TRADE DOLLAR. See DOLLAR.

TRADE, FOREIGN, REGULATIONS OF (to the time of the Commonwealth). Before the Danish settlement, England had little foreign trade. English merchants travelled to the great continental fairs, and in 796 Charles the Great granted a safe-conduct to subjects of Offa of Mercia, trading in his dominions, on condition that Offa extended the like protection to men of the Empire. English exports consisted of raw produce to be worked up by other nations, and, in order to keep up the price of material on which the foreign market depended, Edgar prohibited the sale of a weigh of wool for less than 120d. on pain of forfeiture of 46s. from both buyer and seller. A minimum price of wool, the chief strength of England, was also fixed by Edward III. Ine, and after him Athelstan, encouraged commerce by making thegn-worthy merchants who had thrice crossed the sea by their own means (see MERCHANTS, HISTORY OF ENGLISH). Ethelred's laws declared that "the men of the Emperor who come in their ships are held as worthy of good laws as we are," and companies of German merchants, of whom the most important were men of Cologne and of the HANSE TOWNS, early founded a colony in London, and obtained extensive privileges from Henry II. and his sons. By the laws of Edward the Confessor, foreign merchants were forbidden to take up work on which natives were employed, and to sell retail or to each other, restrictions reimposed in the fifteenth century, when the citizens complained that alien merchants encroached on their privileges (see FOREIGN TRADERS AND THEIR RIGHTS). By

granting safe-conducts and licences to trade, in return for a fine, the king kept the control of trade in his hands, and prohibition to export wool was a weapon ready to his use in time of dispute with Flanders, the great cloth-making country. Freedom from excessive dues and tolls was promised by the Great Charter, but it was one of the complaints of the barons at the parliament of Oxford 1258, that the king's exactions on merchandise impoverished English merchants and kept away aliens, and the resistance caused by the seizure of the wool in 1297 led to the confirmation of the charters. Edward I. improved the conditions of trading by making it subject to the same laws throughout the kingdom, instead of being regulated only by local custom and authority. The Statute of Merchants enacted in 1283 that debts owing to foreign merchants, and acknowledged in appointed towns before the king's officers, could be distrained for; before this time there was "no speedy law provided for them to have recovery of their debts at the day of payment assigned, and by reason hereof, many merchants have withdrawn to come into this realm with their merchandises." The fixing of the customs in 1275, on wool, woolfells and leather, the chief exports, and on wine, the chief import, was another measure of this reign for the regulation of trade. In 1303, by *Carta Mercatoria*, aliens agreed to pay higher customs in return for permission to stay longer than the usual forty days, to sell spice retail, and other privileges (see IMPORTS AND EXPORTS). To develop cloth-manufacture in England, Edward III., 1337, offered protection to Flemish weavers and prohibited export of wool on pain of death, and import of cloth on pain of forfeiture. These restrictions did not continue in force for long, and in 1353 it was provided that imported cloths under ASSIZE (*q.v.*) were to be allowed for in price, instead of being forfeited, because alien merchants "do withdraw them to come with Cloths into England." The export of wool and import of wine were both regulated in the interests of foreign merchants, the fare between Calais and Dover was fixed, and, in 1353, aliens were placed under the king's protection by the Statute of the Staple, which organised more fully the Company of Merchants of the Staple who exported wool (see STAPLE). A result of the encouragement given to foreign merchants was the large circulation of base money in England (see POLLARDS AND CROCKARDS). In order to check the import of this coin, and also the export of English money, much of which was taken abroad in payments to Rome, it was enacted in 1335 that "no Religious Man or other" carry gold or silver out of England; in 1340, for every sack of wool exported, silver plate of two marks value was to be imported, but the Flemings also forbidding export of bullion, this act was repealed. The extensive import of finished goods, chiefly brought by the Italians, interfered with the growing industries of the English. In 1435, import of silken goods was forbidden, and in 1463 and 1484 the prohibition was extended to very many small wares, the artificers having "piteously shewed and complained" that they "be greatly impoverished and much hindered and prejudiced of their worldly Increase and daily Living, by the great Multitude" of ready-made goods imported. Side by side with the laws to keep foreign goods out of the kingdom in the interests of manufactures were those to keep gold and silver within it as the measure of the national power. In 1390, aliens were required to spend half the value of their imports (extended, in 1402, to the whole) on exports; at the same time, denizens were forbidden to export wool, and merchant strangers were to be well treated in England "to the Intent that they shall have the greater Courage to repair into the same." In 1478, half the payments for staple wares were required to be in money and bullion, sent in three months to the mint, while export of gold and silver was made a felony; it was not allowed without a licence before 1660, but in 1510 the penalty of felony was repealed. The object of these laws, and also of the Navigation Acts, passed in 1381 and renewed under the Tudors, for the protection of English shipping (see NAVIGATION LAWS), was to increase the national power; while the aim of Edward III. had been to promote the present well-being of the people themselves. The immediate result of his regulation of trade was that foreign luxuries became cheaper and more numerous and trade increased, but it led to the decay of native shipping and the injury of native manufactures. Against these dangers, legislation was directed from the time of the Good Parliament (1360-1377). As commerce became a national matter, commercial treaties took the place of safe-conducts and licences. By the Treaty of Utrecht in 1474, the HANSARDS were confirmed in their privileges in London, but the English were to be free to take part in the Baltic trade which had always been carried on by the Hansards (see HANSEATIC LEAGUE). In 1496 the Great Intercourse (see INTERCURSUS MAGNUS) secured free trade with the Netherlands, to the advantage of the Company of Merchant Adventurers, who exported cloth, and had their mart at Antwerp (see ADVENTURERS, MERCHANTS). The protective policy of the 15th century continued through the 16th. The extensive conversion of arable land into pasture (see ARABLE LAND, CONVERSION TO PASTURE) in the reigns of Henry VII. and Henry VIII. drove a large proportion of the rural population into the towns, and the consequent competition among craftsmen was increased by the number of foreign wares imported, many of them by the

Merchant Adventurers. In 1515 it was forbidden, as it had been in 1336, to those not of high rank to wear foreign cloth. In 1512, import of hats and caps was prohibited as the cause of "great Idelnesse, enpoveryshyng and utter undoing of great multitude of the Kyngis naturall subjectis borne wythin this said Realme"; in 1529 they could be imported, but sold only at fixed prices. Statutes of Henry VIII.'s reign prohibited the sale of the best cloth to aliens unless there were no English buyers, the import of tinware, and the buying up of wool for alien merchants. An act was passed 1563, and confirmed 1628, prohibiting import of small wares, such as cutlery and haberdashery, which had been imported so largely as to lead "to the decay of the population of towns and the loss of skill in the like mysteries within the Realm of England." Attempts were made by restricting the import of wine and foreign luxuries, to check the extravagance and "excesse of apparell," which was "at these daies so gorgious that" "godly and necessary lawes, made of our Princes, and oft repeated with the penalties, can [not] bridle this detestable abuse." Velvet hats were forbidden, in 1566, to those below the rank of son of a knight or lord. Elizabeth welcomed Protestant refugees from Flanders and France, who introduced new industries, especially new methods of working up wool into "bayes, sayes, arras," and worsted, as the Flemings, under Edward III.'s protection, had developed English cloth manufacture. Export of live sheep was forbidden in 1566, on pain of forfeiture of goods, a year's imprisonment, and loss of the left hand, a second offence being felony; for nine unwrought cloths exported one was to be exported wrought "for the better employment and Reliefe of greate multitudes of the Queenes Majesties Subjectes using the Arte and Labour of Clothe woorking." MONOPOLIES (*q.v.*) were granted for manufacture of salt, paper, and other things which before had been imported. The associations formed in the 16th and 17th centuries for trade and exploration, unlike the older trading societies, were joint-stock companies; the monopoly which they enjoyed was an incentive to extend trade. The Muscovy Company (see RUSSIA COMPANY) obtained a charter in 1553, and the following year eastern trade was granted to them on condition that they employed English ships and sailors, and exported only English cloth. Much of the carrying trade with the east had been in the hands of the Venetians, whose "Flanders Galley," instituted in 1317, yearly visited Southampton and Bruges; this trade declined in the 16th century, partly in consequence of the legislation against the import of ready-made goods. In 1588 the Levant Company (see TURKEY COMPANY), founded 1581, undertook the trade of the Venetians, whose last fleet to Southampton was wrecked off the Needles in 1587. The revenue from feudal dues having decreased, James I., in order to supplement the parliamentary supplies, levied an imposition on imports which was resisted by a merchant named Bate (see BATE'S CASE). The case was tried, and the king was declared to be keeping within his prerogative. Impositions were also exacted during the Commonwealth, though the same party had opposed them when levied by the king. The English, who from being an agricultural were becoming a commercial nation, had formidable rivals in the Dutch, who, in the first half of the 17th century, had control of most of the trade formerly carried on by the Venetians and Hansards. The aim of the Stuart policy, as of the Elizabethan, was to develop trade as a means towards the security and power of the kingdom, rather than to increase its wealth. In 1608, James I. withdrew the charter of the Merchant Adventurers until 1615, with the object of encouraging in England the finishing processes of manufacture, for which cloth was usually sent to the Netherlands. A commission on trade was appointed in 1622 to inquire into the fall in the price of wool, the regulation of merchant companies, the best means of obtaining money payments for exports, and many other matters concerning trade. A trade commission was also appointed by Cromwell in 1655. The EAST INDIA COMPANY (*q.v.*), incorporated in 1600, had many struggles with the Dutch, who themselves founded an East India Company in 1602; the Navigation Act of 1651, prohibiting any import from Dutch fisheries, and imports from the colonies unless brought in English ships, while it caused the price of imports to rise, increased the English carrying-trade at the expense of the Dutch.

[*Statutes of the Realm.*—W. Cunningham, *The Growth of English Trade and Industry*, 1890, 92. —*The Commercial Policy of Edward III.* (Trans. R. Hist. Soc., New Series, vol. iv.) 1889.—H. Hall, *A History of the Customs Revenue of England*, 1885.—W. J. Ashley, *An Introduction to English Economic History and Theory*, 1892.—W. Stubbs, *Select Charters*, 1870.—*A Constitutional History of England*, 1880.—*Social England* (ed. H. Traill), vols. 1-4, 1893-95.—J. B. Williamson, *The Foreign Commerce of England under the Tudors* (Stanhope Essay), 1883.—B. Thorpe, *Ancient Laws and Institutions of England*, 1840.—T. Rymer, *Foedera*, 1816.—H. R. F. Bourne, *English Merchants*, 1886.—C. Armstrong (temp. Henry VIII.), *A Treatise concerning the Staple and the Commodities of the Realm* (R. Pauli, *Drei volkswirthschaftliche Denkschriften*, 1878).—D. Macpherson, *Annals of Commerce*, 1805.] M. T. M.

TRADE, FREE. See FREE TRADE.

TRADE, LARGE AND SMALL. Many of the considerations raised in the discussion of the relative advantages and drawbacks of production on a large and a small scale (*vide* PRODUCTION) are either identical with, or at

least analogous to, those which present themselves in any estimate of the respective merits and demerits, from an economic point of view, of trade pursued on a large and a small scale. In the sphere of that *commercial* competition, which arises in trading, as contrasted with the *industrial* competition distinguished by CAIRNES as affecting production, the larger competitors enjoy certain advantages of buying and selling, of handling a mass rather than a small quantity of goods; while the smaller competitors are able to pay greater personal attention to the peculiar wants of individual customers. On the one hand, the larger houses can spread their purchases over a wider market, they can employ more competent and experienced buyers, they can offer a better chance of a regular demand, they can afford more easily to risk the loss of having some goods left on their hands. They command more extensive resources than those at the disposal of their smaller competitors. They can also sell on better terms. They can advertise their goods more effectively. They can employ a larger and abler staff of commercial travellers to push their wares. They can acquire more easily a high reputation, which inspires their customers with confidence in their disinclination to cheat or adulterate. They can offer a greater variety of goods to suit different tastes. In the internal management of the business they are able to avail themselves of the economies which attach to organisation on a large scale. They can apply the principle of the division of labour more fully; and it may be noticed that, even where the small producer has an advantage in the personal superintendence of his workmen —in preventing them from wasting time or material—the same advantage is by no means so obvious in the business of the trader, selling to customers the goods which others have produced. There is here hardly so much opportunity for waste, and it is easier to secure the effective superintendence of subordinates. It is conceivable that economic considerations may point in the direction of large trading in goods, which are produced most successfully on a small scale. The qualities required for a competent dealer are perhaps more generally diffused, and more readily tested. On the other hand, in spite of the growth of large establishments in retail trade, which reproduce on a great scale the general shop of the country villages, and offer to customers the convenience of completing their various purchases within one building, it is still true that the personal attention, which a small shopkeeper can give to the personal idiosyncrasies of his customers, has an economic importance which is hardly realised, and with difficulty attained, in a large establishment. Time may, as it seems, be wasted, both by buyer and by seller, but the waste is agreeable to the one and is indirectly profitable to the other. It is a commonplace of economic treatises that friction is more prevalent in retail trade than in other departments of economic action; and this friction it is which assists the small shopkeeper to hold his own against the larger dealer. Mr. Charles Booth has remarked in his investigations into the conditions of *London Life and Labour* that one of the most characteristic features of London industry is, contrary to a common opinion, the number of small undertakings; and, though the more obvious feature of the times in trade as distinct from industry seems to be the concentration of small businesses, and the extended development of large concerns, this change, which often amounts in reality to a substitution of wholesale for retail trade, may still be accompanied by the constant creation of supplementary and independent shops, where scope is left for the close vigilance and minute attention of the smaller trader. From a social standpoint it may be observed, on the one hand, that individuals unable to become capitalists themselves, may secure tolerable incomes as the salaried agents of large concerns; and on the other, that the suppression of the small traders by immense companies tends to remove a useful element from the life and activities of small towns. In this, as in so many instances, it is easy and tempting to generalise, but the process is not seldom as dangerous as the results are untrustworthy.

[Cp. Arts. on EMPLOYERS AND EMPLOYED, and INDUSTRIES, LARGE AND SMALL.] L. L. P.

TRADE MARK. The term "trade mark" denotes a distinctive mark or device showing that the article to which it is affixed is manufactured or sold by a certain house or firm. By recent statutes a trade mark must consist of or contain at least one of the following essential particulars:—

(*a*) A name of an individual or firm printed, impressed, or woven, in some particular and distinctive manner; (*b*) a written signature or copy of a written signature of the individual or firm applying for registration thereof as a trade mark; (*c*) a distinctive device, mark, brand, heading, label, or ticket; (*d*) an invented word or words; (*e*) a word or words having no reference to the character or quality of the goods, and not being a geographical name.

The common law recognised the exclusive right of a manufacturer to use a trade mark which had come to be recognised as distinctive of his goods. A register of trade marks was established in 1875, and remodelled in 1883. Anybody wishing to register a trade mark must make application to the comptroller-general of patents, designs, and trade marks. The register contains the names and addresses of proprietors and a record of every change of property in a trade mark. It is necessarily open to public inspection. Registration is

prima facie evidence of a right to the exclusive use of a trade mark, and becomes conclusive evidence after the lapse of five years. It must be renewed every fourteen years. No action can be brought for the infringement of an unregistered trade mark. For an ordinary infringement the remedy consists in damages and an injunction; but fraudulent infringement is a criminal offence, punishable with fine and imprisonment, beside forfeiture of the goods in respect of which the offence has been committed. Foreign goods bearing a trade mark in use in the United Kingdom may not be imported unless the trade mark is accompanied with a definite indication of the country in which the goods were produced. As the right to a trade mark is always the exclusive right to use it in connection with a particular class of goods, it can be assigned or transmitted only in connection with the goodwill of the business concerned in making those goods. It is determinable with that good-will.

[See the *Patents, Designs, and Trade Marks Act* 1883 (46 & 47 Vict. c. 57), amended by the Act 51 & 52 Vict. c. 50; the rules and orders made in pursuance of the statutes and the cases, *Select Committee on Merchandise Marks*, 1887.]

F. C. M.

TRADE NAME. See FIRM.

TRADE REVIVAL. See REVIVAL, TRADE.

TRADER. A trader is principally distinguished from a merchant in economic phraseology, if such a distinction can be said to exist at all, by the comparative magnitude of their commercial transactions, though there is also a possible implication, approved by convention, that the former is more actively, the latter more passively engaged in trade (see TRADE). Similarly a tradesman is differentiated from a trader by being more personally occupied in the actual purchase and sale, and especially the sale of goods, while the trader rather provides them for him. In legal language any person engaged in any kind of mercantile or industrial business is called a trader. Before 1869 only traders were subject to the bankruptcy law, and even now, in the case of married women, a distinction is made between married women "carrying on an independent trade separately from their husbands" and other married women. Bankruptcy proceedings cannot be taken against the latter. R. W. C. T.

TRADES UNIONS. A trade union has been defined as "a continuous association of wage-earners for the purpose of maintaining or improving the conditions of their employment" (Sidney and Beatrice Webb, *History of Trade Unionism*, ch. i. p. 1).

No organisation corresponding exactly to this definition appears to have existed before the beginning of the 18th century, when employers and employed first became permanently differentiated in certain important industries. The principal object of the original trade unions was to secure the better enforcement of various protective laws, such as the statute of apprentices (5 Eliz. c. 4), which were fast falling into abeyance (see APPRENTICESHIP, STATUTE OF). But when the factory system had grown up and caused these laws to be repealed, the function of trade unionism changed. The workers combined no longer to enforce the law, but to maintain restrictions which the law had ceased to countenance. In so doing, they found themselves opposed by the mass of legislation that had gradually grown up against combinations to affect wages and to hamper the free course of trade. These statutes were consolidated and strengthened in 1799, and it was not till after their repeal in 1824 that membership of a trade union ceased to be a statutory criminal offence (see COMBINATION LAWS). The legalisation of trade unions, however, was not yet complete. For, in 1867, the Court of Queen's Bench held, in Hornby *v.* Close, that the objects of a trade union, though no longer necessarily criminal, were still so far illegal as being "in restraint of trade" that no contract or trust undertaken in respect of them could be enforced. No action could, therefore, be maintained against a trade-union official for wrongfully withholding a portion of the union funds. It was the agitation provoked by this decision that led to the passing of the Trade Union Act of 1871, which has given trade unions their present legal *status*. According to this act, every trade union is recognised, whether its objects be "in restraint of trade" or not, as a legitimate object of a trust. Thus, it can hold property, both real and personal, in the name of trustees, who can sue or be sued in respect of such property. But it has no legal personality so as to enable it to sue or be sued directly as a corporate body, nor can its officials be sued on behalf of its members collectively except in order to assert or defend their proprietary rights (see Temperton *v.* Russell (No. 1), 1893, 1 Q. B. 435). It cannot, therefore, either directly or through representatives, enter into collective agreements on behalf of its members, so as to become liable, in case of breach of contract, to be sued for damages payable out of its funds. The Trade Union Act, as amended in 1876, relates to "any temporary or permanent combination for regulating the relations between employers and employed or for imposing restrictive conditions on the conduct of any trade or business," and therefore applies to associations of employers as well as to associations of workmen.

It is pointed out in the 149th paragraph of the report of the royal commission on labour that, where employers and workmen have surrendered the settlement of their mutual contracts to associations which cannot sue or be sued for damages if their members break the

agreements made in their behalf, there is collective action without collective responsibility. Eight of the commissioners, accordingly, reported in favour of an act enabling trade unions "to acquire, by some process of registration, a larger legal personality and corporate character than that which they can at present possess" (see *Fifth and Final Report of the Royal Commission on Labour*, p. 116, par. 10, *Parl. Papers*, c. 7421 of 1894). Most of the labour leaders, however, appear to be opposed to any such change in the law (see *Fifth and Final Report of the Royal Commission on Labour*, p. 146).

According to the latest official statistics contained in the report of the labour department of the board of trade on trade unions in 1896 (*Parl. Papers*, c. 8374 of 1897), the total number of trade unions furnishing returns was 1330, with an aggregate membership of 1,487,562, and an aggregate income of more than £1,675,645, an aggregate expenditure of over £1,239,230, and upwards of £2,168,989 in hand. It is further computed that only about one adult male manual worker in five is a trade unionist. But the great solidarity and complete organisation of the unions, coupled with their unequal distribution among the various trades and districts, give them an influence in the industrial world out of all proportion to their membership (see Webb, *History of Trade Unionism*, pp. 409-430). In recent years, there has been a decided tendency towards the amalgamation of trade unions with one another, the federation of the trade unions connected with the same industry, and the federation of trade unions connected with different industries with a view to exercising greater force in industrial warfare. It has not, however, yet been shown by experience that trades of a totally distinct character from one another can be permanently amalgamated or federated together. For this purpose, a certain natural affinity of occupation would seem to be necessary. At the same time, the annual trade union congresses bring the various associations which take part in them into a certain connection, the chief object of which is to secure common action in matters requiring legislative treatment. In many industrial centres, moreover "trades' councils" exist, composed of the representatives of different and independent trades, and these have a great and, apparently, increasing influence in consolidating for common action the forces of local trades (see *Fifth and Final Report of the Royal Commission on Labour*, p. 32, par. 82),

The constitution of the trade unions varies considerably, but chiefly with regard to the amount of real power vested in their central executive officers. In some cases, as in that of the Durham coal miners, so many references have to be made in the case of general questions to the local "lodges" or branches, to be decided by ballot, that the central body is little more than a group of delegates, acting under immediate instructions, and having to refer points to their constituents even in the midst of negotiations with employers. In other cases, especially where a trade is scattered in various branches all over the country and through districts differing widely in local circumstances from each other, much power and discretion is frequently left with the district or branch officers, while the central executive possesses full control over the funds, and is thus able to exercise a deciding power in the last resort. The measure of control which is vested in the central executives of some trade unions is remarkably full and complete. The society of the boiler-makers and iron shipbuilders presents an example of the very successful working of a trade union strongly centralised in this manner (see *Fifth and Final Report of the Royal Commission on Labour*, pp. 28 and 29, par. 72).

Trade unions of the normal or "old unionist" type discharge two main functions—protective and benevolent—and their policy varies according to the relative importance which they attach to each. Those that exist primarily for the protection of their members against their employers, aim chiefly at substituting collective for individual bargaining between masters and workmen, and, in their struggle to obtain "recognition" for this purpose, are often ready to resort to the risky expedient of strikes. Those, on the other hand, that make the provision of benefits their main concern, are rather apt to adopt a "peace at any price" policy, for fear of risking in strikes the funds on which there are so many other claims. Many of the so-called "new unionist" leaders profess less anxiety either for obtaining the "recognition" of employers or for the integrity of the trade-union capital than for vesting all employing and capitalist functions in responsible political authorities. But the nature of the relationship subsisting between the old trade unionism and the socialist or "new unionist" movement is a matter of dispute. Some consider it to be one of essential antagonism, and point to the fact that socialism is invariably strongest among those trade unions whose organisation is weakest; while others contend that it is one of close alliance, and point to the resolutions of the trade union congress in which the socialist creed is affirmed.

Whether it be economically possible to raise wages universally by means of combination is a question long disputed. J. S. MILL, whilst he regarded capital as the wage fund, considered attempts to raise wages, except by adding to capital, to be logically absurd, but on his abandonment of this view of the source of wages, his attitude to combination changed. Modern economists, however, holding that wages are paid out of produce, argue that the gross earnings of industry often suffice to aug-

ment wages after the sum originally advanced out of capital has been refunded with interest, and conclude that combination to raise wages may succeed (see also COMBINATION LAWS). If this reasoning be sound, the issue is reduced to a question of fact—whether the net effect of the action of trade unions is to lessen production, or, as it is more often put, to "drive trade out of the country." The superior importance which they seem to attach to finding employment for all their members rather than to raising the wages of a portion of their number suggests a negative answer. But the point can only be authoritatively decided after a more detailed analysis of their working and its economic results than has yet been attempted.

[See Marshall's *Economics of Industry*, bk. v. chs. ii. and xiii.; Sidgwick's *Pol. Econ.*, bk. ii. ch. x.; Walker's *Pol. Econ.*, pt. iv. ch. v., and pt. vi. ch. v.; and Walker's *Wages Question*.]

Whatever view be held as to the character of the financial advantages gained by "trade union effort," there is no doubt as to the economic effect of the means adopted in order to obtain them. Although strikes may sometimes enable employers to dispose more easily of their surplus stocks, they are universally admitted to be, on the whole, agencies of pure destruction and wastefulness; and the strength of the economic case against them is often used as an argument against trade unionism generally. It is, accordingly, contended in reply that the connection between trade unionism and strikes is only transitory, and that the organisation that makes a large strike possible is the means of preventing the outbreak of a host of smaller ones, and thus of saving a larger portion of the national wealth than it destroys (see also STRIKES).

The foregoing statements apply only to the United Kingdom, and it is only in the United Kingdom that the higher developments of trade unionism can be studied. In the Australasian colonies, trade-unionism is certainly very strong, but its industrial environment is so imperfect that the recognition by employers of the principle of collective bargaining is hardly even hoped for. For the United States of America trade unions, see TRADES UNIONS, UNITED STATES. In Canada, industrial organisation is still backward. On the continent of Europe, generally, the real or imagined connection of workmen's organisations with the party of political revolution and the consequent alliance between the employers and the all-powerful state bureaucracies, combine to hinder the development of organisation on purely industrial lines. It is in Belgium and Switzerland that industrial organisation most nearly approaches the English type; but, even in these countries, the most important working-class associations are largely mixed up with the machinery of general party politics.

[For detailed information on the subject of the last paragraph, reference may be made to the series of reports on the labour question in foreign countries, published by the royal commission on labour (see *Parl. Papers*, c. 6795, x. of 1892; c. 6795, xi., 7063, vi., 7063, vii., 7063, viii., 7063, ix., 7063, x., and 7063, xii. of 1893-94; and c 7063, xi., 7063, xiii., and 7063, xiv. of 1894.

In addition to the works already cited, there may be mentioned the following: Brentano, *Hours and Wages in Relation to Production*, London, 1894.—Comte de Paris, *The Trades Unions of England*, London, 1869.—Sir W. Erle, *The Law relating to Trade Unions*, London, 1869.—Howell, *The Conflicts of Capital and Labour*, London, 1890, and *Trade Unionism, Old and New*, London, 1891.—Sir J. F. Stephen, *History of the Criminal Law of England*, London, 1885.—Spyers, *The Labour Question*, London, 1894, being an epitome of the evidence and report of the royal commission on labour, and the "*Labour Gazette*," the annual reports on trade unions and strikes and other periodical publications of the labour department of the board of trade (LABOUR DEPARTMENT and STRIKES; VEND, NEWCASTLE).] T. G. S.

TRADES UNIONS (UNITED STATES).

Early History, p. 565; Present Size, p. 566; Benefits, p. 567; International Typographical Union, p. 567; Cigar-Makers International Union, p. 567; United Brotherhood of Carpenters and Joiners, p. 568; Knights of Labour, p. 568; Railroad Unions, p. 569; United Green-Glass Workers and National Association of Stationary Engineers, p. 569; The American Federation of Labour, p. 570; State Activity, p. 571; Strikes and Lockouts, p. 572; Objections to Trade Unions, p. 572; Apprentices, p. 572; Labels, p. 573; Labour Papers, p. 573; Labour Leaders, p. 573; Authorities, p. 573.

Nothing is known of labour organisations in America prior to the present century. Records exist of a strike of bakers in New York in 1741, indicating the possibility of a local union at that time, though doubtless only temporary. The strikers were convicted of conspiracy by the courts. There were four successful strikes of a shoemakers' union in Philadelphia, 1792, 1796, 1798, and 1799. Thence till 1821 occasional strikes are recorded, some successful, some unsuccessful, among sailors, cordwainers, printers, and the building trades along the Atlantic seaboard between Boston and Philadelphia, but no important unions existed. During these times the courts almost invariably convicted the strikers, when brought before them, of conspiracy in seeking through an association to raise wages more than the laws of supply and demand would otherwise allow. Such decisions of the courts have been met by statute law, especially since 1850, so that to-day men are free to belong to labour organisations, but courts still sometimes convict, when men strike on railroads or boycott an employer.

The tailors, according to Mr. George E. M'Neill, the historian of the labour movement, organised the first modern trade-union in 1806;

the hatters followed in 1819. Both had previously retained membership in English trades-unions. There was a printers' union in Philadelphia as early as 1802. In 1833 came the first union of various trades of a city—New York,—followed in 1834 by a smaller trade assembly or central trade and labour union of sixteen unions of mechanics in Boston. Prior to 1840 the following trades had local organisations in some of the largest cities; ship-carpenters and joiners, calkers, house-carpenters, printers, roofers, bricklayers, tailors, hatters, saddlers, cordwainers and shoemakers, factory operatives, marble and freestone cutters, coopers, and masons. The panics of 1837 and 1857 interfered with labour organisation, but in 1862 twenty-six trades are said to have had a national organisation. Many, however, were very weak. Through their agitation hours of labour had been reduced to eleven in a large portion of the textile factories, and the ten-hour day secured in government work and most of the building trades. The civil war again interrupted the growth of the unions, many of whose members enlisted in the armies of the north. After the war, organisation was beginning with much success when the severe depression of 1873 to 1877 again forced many of the unions to the wall and endangered nearly all of those remaining.

In 1888 the secretary of the American Federation of Labour reported 53 national and international trade unions in the United States, with a membership of 510,700 in 5247 local unions. He reported in 1893 a membership of 640,000 in 83 national unions having about 8000 local unions. Not all were affiliated with the American Federation of Labour. There were also, at both dates, several hundred unaffiliated local unions. The 12 largest trade unions in the country contained about 230,000 members in 1888. The 12 largest unions at the close of 1896, not necessarily the same as those just referred to, contained about 266,000 members. In the following table there is given the date of organisation and the membership approximately 325,000, of the 20 largest unions, as reported to the writer by their secretaries, or as shown by their representation in the convention, in December 1896, of the American Federation of Labour.

The 20 national unions that were represented at both the 1892 and 1896 conventions of the American Federation of Labour had votes, in the two conventions, indicating a membership in December 1892 of 201,500, and in 1896 of 176,200, a decline of 12·6 per cent; yet this falling off during the severe depression was small compared with the decline in the previous depression of 1873 to 1878, at the close of which it is estimated that there were not over 40,000 members left, who were keeping up their dues in the unions.

Name of Brotherhood.	Date of foundation as a national body.	Membership, 1896.
Brotherhood of Locomotive Engineers	1863	32,000
United Brotherhood of Carpenters and Joiners of America	1881	29,691
International Typographical Union	1850	28,838
Cigar-Makers' International Union of America	1864	28,700
Brotherhood of Railroad Trainmen	1883	24,000
Bricklayers' and Masons' International Union of America	1865	23,254
Brotherhood of Locomotive Firemen	1873	22,461
Iron Moulders' Union of North America	1859	20,000
United Mine Workers of America	1890	15,400
Western Federation of Miners		15,000
International Association of Machinists	1888	14,300
Boot and Shoe Makers' Union	1889	12,000
United Brewery Workmen's National Union	1886	10,000
United Garment Workers of America	1891	10,000
Order of Railway Conductors of America	1868	8,000
Amalgamated Association of Iron and Steel Workers	1876	8,000
Flint Glass Workers' Union of America	1878	7,200
Machine Wood Workers and Amalgamated Furniture Workers	1890	6,500
Brotherhood of Painters and Decorators of America	1887	5,000
Journeymen Tailors' Union of America	1883	5,000
Total	..	325,344

The membership of the unions affiliated with the American Federation of Labour in 1896 was estimated at about 400,000 by the Michigan state bureau of labour statistics. The federation at this time included 54 national unions, 361 independent local unions, and 10 state and 61 city branches, in which were included a large portion of the membership of the national and local unions.

Aside from the American Federation of Labour there were, in 1896, 6 unions connected with the steam railroads, and having a membership of about 95,000; also the Bricklayers' and Masons' International Union of America, containing 25,254 members, and approximately 105,000 members of still other unions in New York state. If to this be added the probably 125,000 members of other unions in other states, the total number of American labour organisations, at the close of 1896, would appear to be about 750,000, although it might vary 10 per cent in either direction.

According to the census of 1890, the number employed in manufacturing and mechanical industries, and upon street and steam railways, in the mines, the quarries, the merchant marine, the telegraph and telephone service, and as stationary engineers and firemen, was 5,404,865 males, ten years of age and upwards. Probably not over 5,000,000 were above the age of 17 in these industries. With the growth of population since 1890, the number

over 17 years of age in these occupations in 1896 could not have exceeded 5,500,000.

Inasmuch as trade unionism in America is almost exclusively confined to male wage-workers in these employments, it would appear that one-seventh to one-eighth of such employees are organised. There is scarcely any organisation among the agricultural labourers, domestic and personal servants, clerks and copyists other than salesmen, classes in which there were 5,300,096 male employees 10 years of age and upwards in 1890. Of 180,231 members of labour organisations in New York state in June 1895, according to the New York state bureau of labour statistics, only 10,102, or 5·6 per cent, were women; and of these, 8728 were engaged in the manufacture of clothing, cigars, and cigarettes. Of the 19,494 members of labour organisations in Michigan in 1896, according to the report of the Michigan state bureau of labour statistics, only 302, or 1·5 per cent, were women.

The best organised of the large trades or occupations are the glass workers, iron moulders, cigar-makers, locomotive engineers and firemen, printers, and the building trades.

Most of the trades unions of Canada are branches of those of the United States. In the province of Ontario in 1892, according to the report of the bureau of industries, there were 3227 knights of labour and 3294 trades unionists. All but about 300 of these were members of organisations having headquarters in the United States. Mr. Wm. B. Prescott, the president since 1891 of the International Typographical Union, was, when elected, a citizen of Toronto, Canada.

Only seven of the existing national unions commenced before 1873, and none earlier than 1850, while only fourteen national unions were organised before 1881.

The census of 1880 recorded only five unions with 13,032 members that then had benefit features for sickness, death, etc. In 1886 there were, according to an investigation then made by the author, and subsequently revised, twenty-six unions with about 135,000 members that had benefit features. In 1893 the number had grown to at least thirty-two national or international unions with about 330,000 members. A brief reference may be made to a few of the most important organisations.

The *International Typographical Union*, in common with the printing trade as a whole, is almost entirely composed of native Americans. Even few English printers migrate to the United States. In 1892 there were 706 women members, but it is harder to secure membership among women than men. The union rules demand equal pay for equal work, and it is noticed that when women join the union they often ask to be relieved from this law, as its enforcement frequently leads to the substitution of men for women by employers. This union is perhaps the only one in America that has had a historian to write a full statement in book form; this was done by John M'Vicker in 1892. The union also possesses a novel feature in the Childs-Drexel home for invalid, aged, and infirm members, located at a famous health resort, Colorado Springs, Colorado. In aid of it $10,000 (£2000) was given in 1886 by Mr. George W. Childs, late editor of the *Philadelphia Ledger*, and Anthony J. Drexel, a Philadelphia banker, also now dead. In order to complete the building, which cost $62,000 (£12,400), and to carry it on since its opening in the summer of 1892, until July 1897, the union has spent over $190,000 (£38,000). In April 1893, the average number of inmates in the two years ending 30th June 1896 was fifty-two. The distance is too great from most of the printers to tempt a large number to avail themselves of the opportunities offered. Four-fifths of all weekly papers, and nearly all religious papers, are published from so-called open offices, where union and non-union men work together at nearly union wages. Nearly all large offices employ some non-union men, but a large proportion of the important daily papers of the country employ exclusively union men. June 30th 1897, the membership was 28,096 as contrasted with 31,379 three years before. Of the expenses of $125,162·97 (£25,032) in 1896-97, the Home took $34,993·70 (£6998), the burial benefit $23,700 (£4740), trade disputes $33,676·77 (£6735), and other expenses such as the monthly *Typographical Journal*, the office, etc., $32,992·50 (£6598).

The *Cigar-makers' International Union of America* has the best developed system of benefits of any union in America, with the possible exception of a small union of German printers, the *Typographia*. It also has the largest reserve fund for each member, which amounted in 1893 to $18·75 (£3 : 15s.), but had fallen in 1896 to $8·25 (£1 : 13s.) for each member.

The title "International," in this and other American unions, indicates branches in Canada and sometimes in Mexico. The amount spent for benefit features by this union in 1892 to 1895 inclusive was $2,953,744·91 (£590,749), of which only $623,151·44 (£124,630), or 21 per cent, went to sustain strikes. The sick benefit took, in these four years, $894,542·57 (£178,908), the death benefit took $353,894·90 (£70,778). The travelling benefit, instituted like the two previous in 1881, consumed $590,414 (£118,080), and the out-of-work benefit, instituted in 1890, took $491,742 (£98,348). About the same ratio of expense for the different benefits has continued through 1896 and 1897. Travelling benefits not to exceed, in the aggregate, $20 (£4), and

not over $8 (£1 : 12s.) at any one time, are given as loans, so far as necessary to procure transportation to the nearest union in any direction that a member may desire to travel by the nearest route, but after obtaining employment 10 per cent of earnings must be devoted weekly to the repayment of the loan. The out-of-work benefits, after the first week, and not to exceed $3·50 (14s.) a week, and $54 (£10 : 16s.) a year, are given, and sick benefits of $5 (£1) a week. Funeral benefits of $50 (£10) are also paid, and, inclusive of the latter, $200 (£40) to dependent relatives, if the deceased has been a member 5 years, $350 (£70) if a member 10 years, and $550 (£110) if for 15 consecutive years. For the first 16 weeks of a strike or lock-out, $15 (£3) a week is given, and after that $3 (12s.) a week until the end of the difficulty. The total membership grew from 1016 members in 1877, 12,000 in 1885, and 26,114 in 1893, to 28,700 (in 350 locals) in 1896. In the three years ending 30th Juue 1896, 7174 members were involved in trade difficulties which did not always lead to strikes. Only 756 of the members lost in their contention, 3558 won, and the remainder secured some compromise, or had not yet settled the difficulty at the end of the third year. The entire weekly cost per member in 1895 was, for benefits, 27 cents (1s. 2d.), and all other expenses, 9 cents (5d.). The average expenses for all purposes, for the 5 years ending 30th June 1895, was 20½ cents (10d.) per week per member. No strike is supported by the national body if involving more than 25 men, unless not only approved by the national executive committee, but by a two-thirds vote of the entire membership voting on the question. This provision was copied in 1890 by the International Brotherhood of Brass-workers.

An interesting feature of the union is that every one must vote on every election of officers, and on questions propounded through the initiative and referendum, which are in full force, or be fined 50 cents (2s.). This has increased threefold the number of voters, and is pronounced a success. Every candidate for high office must write 500 words for publication in the journal relative to the methods and aims of the union.

The *United Brotherhood of Carpenters and Joiners* in America was the largest trade union in America for some years, having 54,124 members in 1893. The paying membership declined to 29,691 in July 1896. From 1883 until July 1894, $310,583 (£62,116) was spent by the national body on strikes and $353,520·60 (£70,704) on funeral and disability benefits, while the locals spent $685,434 (£137,086) for sick benefits. During the next two years the national body spent $15,015·12 (£3003) on strikes, $91,002·10 (£18,200) on benefits, and $33,564·90 (£6713) for publishing the official organ *The Carpenter*, and other administrative expenses.

During 1889 to 1893 inclusive, the union claims that only 4 per cent of its strikes were lost, 476 were won, and 24 compromised. It also claims to have secured the eight-hour day in 49 cities, nine hours in 399 cities, and a short Saturday in 403 other places, instead of the universal ten hours' day that prevailed in 1891, while wages were also raised fully 50 per cent. There were, in the United States in 1893, 44 locals, and 2750 members of the British Amalgamated Society of Carpenters and Joiners.

The Knights of Labour, the most famous of American labour organisations, was designed by its founder, Uriah S. Stevens, to educate its members so that, through co-operation and state activity, the whole wages system might be finally subverted. It was a forerunner of the so-called new trades-unionism of England and America. It was one of the first labour organisations to admit employers, women, unskilled and negro labour. To break down trade exclusiveness, all trades were at first organised in mixed assemblies. This was found, however, to almost inevitably give those unacquainted with the conditions of any industry the right to determine strikes in that industry. To prevent this, and in a spirit possibly of rivalry with the older trades unions, there arose trade districts composed no longer of mixed assemblies, but of those exclusively belonging to a single trade: for example, the district assembly, 300 members, is composed of glass workers. These trade districts seemed to lose sight of the educational idea, and engaged in trade disputes quite recklessly, while a great antagonism with trades unions in the same trades was naturally developed. The organisation of the Knights of Labour did not provide for a thorough control of trade disputes by a national body as in the best of the trades unions. The secrecy of the order led to an exaggerated idea of its importance. Ignorant workers by the thousand were rapidly admitted without such preliminary instruction in the objects of the order as was intended, and to some extent carried out by the founders of the order in its early years. A national organisation was effected 1st January 1878. The membership was 10,000 early in 1879, 71,000 in September 1884, 111,000 in October 1885, while at the October 1886 session of the General Assembly at Richmond, Virginia, the membership was reported as 730,000. It is supposed early in 1887 to have reached 1,000,000 members. The character of the membership led to such reckless indulgence in trade disputes as to produce a very rapid decline, until at the close of 1893 the actual paying membership in good standing is generally estimated by those not in the order to be under

40,000. No official statement of membership has been made for some time. The majority of the leaders, and even a large portion of the rank and file of American trades-unions, have been at one time or another members of the Knights of Labour; and while they believe that its prominent position among organisations of labour is gone for ever, they admit that the trades unions have learned many lessons from the members of the Knights of Labour, one of which is, that an injury to one is the interest of all, and another is the importance of political activity of a non-partisan type. In accordance with the ideas of its founders, the locals of the Knights of Labour were to set aside at every meeting an educational hour for the discussion of questions other than local trade disputes. The result of this, too, has been very marked on the American labour movement (see FARMERS' ORGANISATIONS IN THE UNITED STATES).

Railroad Unions.—Of the approximately 1,000,000 men in railroad service in the United States, Canada, and Mexico, over all of which the same unions claim to extend, less than 100,000 are now members in good standing in the unions.

The *Grand International Brotherhood of Locomotive Engineers*, like the *Firemen, Trainmen*, and *Machinists*, refuses to admit negroes. Three black balls also exclude. About $1,000,000 (£200,000) in charity have been bestowed by the executive board since the foundation of the union, to say nothing of donations by locals. There is a special insurance department with policies of $1500 (£300) in case of death or total disability. No one can hold over three policies. Through the insurance department, about $7,000,000 (£1,400,000) have been paid to beneficiaries. The engineers have incurred the distrust of some other labour organisations by their refusal to federate with them, though occasionally they act in concert with other branches of the railroad service.

The *Brotherhood of Locomotive Firemen*, from 30th June 1880 to 30th June 1896, disbursed for death and disability benefits $3,836,621·20 (£767,324), and for four great strikes, in 1886, '88, and '93, $599,545·15 (£119,909). Very little was spent on any other strikes. In the two years ending 30th June 1896 the general expenses amounted to $141,062·02 (£28,212). There was spent on benefits $650,400·80 (£112,080), and for the protection of members in dealing with employers, $11,078·01 (£2215). Even the latter small item does not seem to have been all spent on strikes. The membership of the union 30th June 1896 was 22,461.

The *Brotherhood of Railroad Trainmen*, with about 24,000 members, has a permanent disability and a death benefit of $400 (£80), $800 (£160), and $1200 (£240), according as each person prefers to be assessed. From the organisation of the brotherhood in 1883 until 1st August 1897, $3,947,152·86 (£789,430) has been spent in payment of 3818 policies. Very little was spent for strikes—in most years nothing whatever. In 1896 the brotherhood spent nothing for strikes, $491,942·90 (£98,388) for benefits, and $73,987·01 (£14,797) for running expenses, of which $20,292·30 (£4058) was devoted to the monthly journal of the order. Through the influence of the union, the United States government, a few years ago, passed a law in accordance with which the safety appliances upon railroads have been greatly increased.

There are other brotherhoods of smaller size, such as the *Brotherhood of Railway Trainmen*, the *Brotherhood of Railway Shop Employees*, and the *Order of Railroad Telegraphers*—an organisation which, in 1893 (its first year), aimed to absorb all the railway workers, and which did secure a membership of over 25,000, went rapidly to pieces after its defeat in the great railroad strike in 1894. It was formally dissolved in 1897.

The *United Green-Glass Workers* took the initiative in 1884 in organising a universal federation of the window-glass workers of the world. Branches were organised in Belgium, France, Italy, and England, and would have been in Germany but for legal difficulties. At present the American branch pays *$1000 (£200)* yearly for the salary of the secretary-organiser, who is stationed in Belgium.

The American Flint Glass Workers' Union, with 7200 members, spent on a great strike, from June 1895 to June 1897, $941,843·50 (£188,368). Although the strike was largely a failure, and the earnings of all those at work, if apportioned equally among all the members of the union, was only equivalent to $7·97 (£1 : 12s.) for each week of the two years, while the strike assessments averaged $1·19 (4s. 6d.) per week in all, the membership was but slightly decreased. Disturbed by the competition of what the union claims are half-trained apprentices, non-union men, and immigrants, the union refuses to work with any non-union men or boys, and refuses to admit to its membership any foreigner, save on payment of $50 (£10).

The *National Association of Stationary Engineers*, organised in 1882, allows no strikes, differing in this respect from all the other unions which reported on this head. In the year 1892-93, $2110 (£422) were paid to the sick and disabled, 1610 books were added to the union's library, and 542 lectures were secured. In the prominence of this educational side, also, this union is unique.

In Michigan, 237 local unions of various national bodies, with a membership of 19,494, were investigated in 1896 by the state bureau of labour statistics, and the result is probably

typical of the unions generally throughout the country in the matter of benefit features. It was found that 21 unions paid out, in 1895-96, an average of $4·01 (16s.) weekly to each one out of work, while 112 made no report; 73 local unions spent, on the average, for each member who was sick, $5·04 (£1) per week, and 82 made no report; 107 unions spent on the average for strikes $6·43 (£1 : 5s.), and 79 made no report; 93 unions spent an average of $74·12 (£15) for each death in the order, and 82 made no report. The other unions, in each case, reported no expenses under these heads.

In Indiana, in 1893, according to the report of the state bureau of industrial statistics, 96 unions paid sick benefits aggregating $8254 (£1651), and 125 paid death benefits aggregating $16,409 (£3281). The membership of these unions then was 19,081 and the average number of hours per day worked was 9·7, or almost exactly the same as in Michigan.

In New York state, 474 organisations, with 121,925 members, reported to the New York state bureau of labour statistics in 1895, that they expended in benefits, in 1894, $511,817·59 (£102,363). Of this amount $89,150·04 (£17,830) was spent for strike benefits, and $10,676·74 (£2133) was donated to other labour organisations, presumably for strike purposes, or a total under this head of 19·5 per cent of the total benefits. For out-of-work benefits, $106,801·69 (£21,360) was spent; for sick benefits, $60,207·98 (£15,041); for death benefits, $93,437·92 (£18,685); and for other benefits, $151,543·22 (£30,308). A large part of the latter item seems to have been paid to members who were unable to procure employment. In 67 other labour organisations, 11,660 members reported that they financially aided their members, but failed to state the amount spent. The remaining 319 labour organisations, with 23,612 members, failed to make any report upon this head.

The first successful effort to federate a large number of American trades unions was made in 1866, when the *National Labour Union* was founded, composed of sixty organisations, only part of which, however, were national in extent. Its nomination of a presidential ticket in 1872 divided its membership, and the panic of 1873 completed the ruin of the union.

In 1881 there was organised at Pittsburgh, Pensylvania, the *Federation of Organised Trades and Labour Unions* of the United States and Canada, whose name was changed in 1886 to its present form of *The American Federation of Labour*. The growth has been steady, until to-day nearly all the important unions having a national organisation, excepting those in railway employment, are affiliated to it. It is impossible to give the number of unionists thus affiliated, because most of the unions do not pay a *per capita* tax to the federation on all their membership. This tax is three cents (1½d.) per member per year in the case of national unions and twelve cents (6d.) in the case of such locals as have no national organisation. A further difficulty arises from the fact that the same person may be represented in the federation twice, once as a member of his union and again as a member of the central labour body of his city.

At the 17th annual convention of the Federation, held in Cincinnati, Ohio, in December 1896, there were 64 delegates, representing 38 national unions which had paid in a per capita tax on 239,600 members. At the same convention 35 delegates represented local unions of perhaps as many hundred members. Three represented the state federations of Illinois, New York, and Massachusetts, and 15 represented the central bodies of Boston and Laurence, Mass.; Baltimore, Md.; Washington, D.C.; Erie, Pa.; Cincinnati, Toledo, Hamilton, and Zanesville, Ohio; Indianapolis, Ind.; Louisville, Ky.; Nashville, Tenn.; St. Louis and Kansas City, Mo.; and Duluth, Minn.

Although in 61 cities the central labour union, or federation of all the unions of the city, affiliate with the American Federation of Labour, New York, New Orleans, Buffalo, and a few other large cities do not affiliate.

The *American Federation*, though hampered by a small revenue and by contests, now growing less in number and bitterness, with the Knights of Labour, has been of value in bringing labour leaders together through correspondence in the annual conventions,—in helping forward the eight-hour movement, and all kinds of labour legislation. Occasional loans and even gifts are also made to trades unions, chiefly to secure proper legal presentation before the courts of what seem likely to be leading cases.

A few comparisons between the British trades union congress and the American convention of labour may be made, based upon an article in the *American Federationist* for December 1896 (published in Washington). Whereas in England the parliamentary committee is the only representative and executive body of the trade unionists between their congresses, a committee whose business it is to ask parliament for legislation, the representative and executive body in America between conventions, is the executive council of the American federation of labour, consisting of the president, four vice-presidents, a secretary, and a treasurer, annually chosen. The president now receives a salary of $1800 (£360) a year and travelling expenses, and the secretary $1500 (£300). It may be stated in passing that the salary, aside from travelling expenses,

of the chief of the Cigar-makers' International Union, is $30 (£6) a week, that of the Firemen $2500 (£500) a year, of the Railway Trackmen $1500 (£300), and of the secretary of the Bricklayers and Masons $1200 (£240),

The executive council of the American Federation concerns itself not only with state and national legislation, but with organisation, strikes, boycotts, grievances, etc. The president presides at all the sessions of the annual conventions, unless temporarily relieved at his own request, and appoints standing committees for the different phases of business considered by the convention, such as legislation, boycotts, labels, *The Federationist*, salaries, organisation, propaganda, grievances, etc. The British congress has no standing deliberative committees, and therefore has little time to consider anything save legislation.

In the American conventions the unit rule is unusual. The convention meets on the second Monday in December, and continues in session until all the business is transacted, usually nine or ten days. Reporters have never been excluded. Government representatives, excepting those for bureaus of statistics, are not seen at the conventions, but a few economists and others are usually in attendance.

The rank and file of American wage-earners in and out of trades unions are not yet committed to any very definite or large schemes of state activity, and are greatly kept back in this matter as compared with English wage-earners by constitutional limitations in national, state, and local government. The doctrine of *laissez-faire*, until lately fostered in America by industrial conditions that opened opportunities for advance to every one, is not at once shaken off. The greatest recent political achievement of labour in America appears to be in the law signed by President Harrison in his last year of office, prohibiting more than eight hours a day of labour on all future contracts for the national government. Another and older law forbids more than eight hours of work by government employés. These two laws are being introduced in the state and city governments. The unions are everywhere the chief supporters of factory and other labour legislation.

The years 1892 and 1893 witnessed a rapid growth of desire for state activity along the line of the so-called "new trades-unionism." The last convention of the federation in 1893 submitted to the consideration of the local unions the demands of the English trades-unionists for compulsory education; direct legislation; a legal eight-hour working day; sanitary inspection of workshops, mines, and homes; liability of employers for injury to health, body, or life; the abolition of the contract system in all public work; the abolition of the sweating system; the municipal ownership of street cars and gas and electric light plants for public distribution of heat, light, and power; the nationalisation of telegraphs, telephones, railroads, and mines; and the collective ownership by the people of all means of production and distribution. The attempt to commit the federation to this entire platform, including its last plank of pure socialism, by recommending it not only to the consideration but to the "favourable" consideration of the unions, was voted down by the slight majority of 1253 to 1185, and this was only secured by the method of voting in these conventions, which gives trades unions a vote for every 100 members for which *per capita* dues have been paid, but allows only one vote to each of the central bodies of the cities. Of the 15 representatives of the latter 14 voted to retain the word "favourable," and of the 86 delegates from all organisations 54 voted in the same way. Recent restrictions by the courts of strikes on railroads, when in the hands of receivers, as many now are, is increasing the demands by railroad employés for government ownership.

In the convention of 1894, at Denver, the federation struck out the demand for the collective ownership by the people of all means of production and distribution, but passed a vote upon all the other planks, which was interpreted by the convention in New York in 1895, by a large majority, as meaning that these planks should be considered legislative demands of the wage-workers, and not a political platform. In the convention in Cincinnati in 1896 the following resolution was passed:—

"Whereas the influences of corporations, holding, or seeking to obtain, possession of public franchises, are one of the most potent influences antagonistic to reformative measures, and the most active cause of corruption in politics and of mismanagement and extravagance in public administration; therefore, be it

Resolved, that the sixteenth annual convention of the American Federation of Labour urges upon all the members of affiliated bodies that they use every possible effort to assist in the substitution in all public utilities — municipal, state, and national, that are in the nature of monopolies — public ownership for corporate and private control."

The use of injunctions in labour disputes since 1893 has further increased the interest of the wage-earner in such political action as may check this new action of the courts. According to recent decisions, a judge may try without jury, and sentence for contempt for an indefinite period, all violators of some order of court prohibiting, perhaps, the marching on the highways in crowds, or the use of offensive epithets in the neighbourhood of a strike, or the interference in "any manner" as a recent injunction, in 1897, in Pennsylvania declared, "with the plaintiff's employees while they may be passing to and from their work . . . on or near plaintiff's premises."

Labour contests in the strongest organisations are more and more prevented by conciliation and arbitration. Conference committees of employers and employés often make yearly agreements in coal mining, glass, iron and steel making, cigar-making and the building trades. American trade-unionists, outside at least of railroad organisations, have a growing dislike to working with the non-union men, and in very many unions the members refuse to do so. This action finds its apology if not

its defence in the apparent economic success of the policy and in the use of similar methods by many combinations of capitalists, which refuse to deal with competitors who do not join the combination, or with customers who patronise such competitors. When the non-union man, denominated a "scab" by the union, tries to take the place of strikers, violence is often visited upon him by the union, as some years ago in England; but the majority of the unions do not countenance violence.

During the 13½ years from 1st January 1881 to 30th January 1894 there were 14,390 strikes in the United States, involving 69,167 establishments and 3,714,406 employés. In the 10,375 establishments having successful strikes, 1881-86 inclusive, 518,583 employés were involved. In the 3004 establishments in which strikes were partly successful, 143,976 employés were involved, while in the 8910 establishments in which the strikes were failures 660,396 or 49·9 per cent of the employés in all the establishments were thrown out of employment. In the 20,397 establishments having successful strikes from 1st January 1887 to 30th June 1894, 669,992 persons were involved. In the 4775 establishments where strikes were partly successful 318,801 employés were involved, while in the 21,687 establishments in which strikes failed, 1,400,988 persons, or 58·6 per cent, were involved.

The percentage of those failing in strikes during 1887-92 inclusive, prior to the depression, was 55·5 per cent. In the whole 13½ years 32 per cent of those thrown out of employment by strikes won, 12·46 per cent partly succeeded, while 55·5 per cent failed entirely. From the other 0·04 per cent no report has been obtained.

Of the establishments involved, 82·24 per cent, during 1881-86 inclusive, were subjected to strikes by order of labour organisations, and from 1st January 1887 to 30th June 1894, 69·6 per cent. The average duration of the strikes for the 13½ years was 25·4 days. In the first period, 1881-1886, there were 9409 establishments involved in strikes for a rise of wages. In 65·99 per cent of these the men were wholly successful, and in 8·43 per cent were partly so. In the second period 12,041 establishments were involved in strikes for this cause, and in 51·1 per cent the men were successful, and in 10·7 per cent partly so. In the first period there were 4344 establishments concerned in strikes for the reduction of wages, and in 24·29 per cent the men were wholly successful, and in 22·24 per cent partly so. The respective percentages in the 6199 establishments effected during the next period were 56·8 and 1·5. Of the 1734 establishments in which there were strikes against reduction of wages, in the first period the men succeeded in 34·2 per cent, and partly in 9·1 per cent. During the second period the percentages in the 3830 establishments were respectively 16·9 per cent and 25·4 per cent; of the 1314 establishments in which there were strikes for the recognition of the union in the second period, the men failed in 92·7 per cent. Of the 3620 settlements in which there were sympathetic strikes the men failed in the second period in 73·7 per cent.

Much of the opposition to non-union men which prevails among those not wage-earners is due to the comparative newness of unions in America and to the fact that the absorption of free government land, and the growth of manufacturing and mining, have only recently developed the need for labour organisations, a need which a majority of the American-born population reared under different conditions are yet unable to appreciate. The presence in the country of coloured, Chinese, Italian, Bohemian, Hungarian, French, Canadian, German, Irish, and many other nationalities, introduces many complications in labour disputes. These nationalities largely fill up the hard-handed industries which native Americans, perhaps in consequence of this foreign element, are loath to enter. Naturally the foreign-born enter the unions of their trade and give to many the impression that the trades unions are antagonistic to native Americans. Yet the returns of a large number of the unions indicate that the percentage of native Americans is fully as large in most trades unions as in the trade at large, and that the German only is considered to vie with the native American in aptitude for organisation. The absence, until very recently, of technical or trade schools accounts in part for the moderate percentage of Americans in some trades. In some cities every skilled tailor, for example, is of foreign birth, yet outside at least of a few trades in a few cities on the Atlantic coast there is, according to trades-union officials, more prejudice among the unions against than in favour of the immigrant. Nearly all of the trades unions organised prior to 1870 were chiefly composed of native Americans and led by them. A workman trained abroad must pay an initiation fee of $50 (£10) to enter either the *American Flint-Glass Workers' Union* or the *United Green-Glass Workers' Union of the United States and Canada*, perhaps the most successful of the large unions in keeping up wages and securing a six weeks' summer vacation, and a seven to eight hours' day.

The tableware branch of the *American Flint-Glass Workers' Union* presents the only instance known to the writer of an American union openly restricting the number of pieces its members shall make per day on piece-work.

The attitude of the unions toward apprentices attracts much attention in America. The rapid development of machinery and the dislike of both the boy and the employer for the restrictions of a three or four years' apprenticeship have dealt a fatal blow to this system of trade instruction in most trades. In industries where machinery is not the dominating factor, such as glass-making, iron-moulding, type-setting, brick-laying, and stone-work, plumbing, pattern-making, and a few very small trades like tack-making, knife-grinding, and tile-laying, there is a fairly successful effort by the unions to enforce apprenticeship laws, and even in some places to restrict the ratio of apprentices to journeymen. Even in those cases such statistics as have occasionally been gathered by state bureaus of labour statistics, as in Massachusetts in the census of 1885, indicate that there are usually more young men

in training without any formal apprenticeship, and much fewer apprentices than the trades-union rules would allow. Only about one per cent of American strikes relate to apprenticeship rules, and few of these succeed. Efforts are now being made to create a substitute for the apprenticeship system in manual training in schools.

Many unions have gained concessions from employers by having labels affixed to all goods made by their members. The members of all labour organisations are then urged to buy only such labelled goods, when purchases are made in trades where the label is in use. The secretary of the American federation of labour thus reported at the 1896 convention; "The unions now reporting the union labels are: the cigar-makers, boot and shoe workers, hatters, printers, garment workers, bakers,' carriage and waggon makers, sardine packers, salmon fishermen, tobacco workers, tailors, moulders, wood workers, cracker bakers, coopers, flour-mill employés, brewery workers, mattress makers, broom makers, laundry workers, teamsters. The clerks, barbers, and waiters have cards, and the agents a badge. The growth of the union label is steady and sure. It is the backbone of some of our unions, and a great aid to them all. Label leagues are being instituted in many places, both on local and state lines, and are doing good work."

The trades unions of America have never sustained a broad, ably-edited labour paper, but support scores of monthly journals and a few weeklies devoted to the interests of the trade union which publishes such. A few have been excellent of their kind. A new and somewhat hopeful effort to bring out a strong journal has just resulted in the issue of the *Federationist*, a monthly organ of the *American Federation of Labour*.

Among the great organisers and leaders of the American labour movement in the past or present should be mentioned the following, with a word in regard to each. George E. M'Neil of Boston, author of an important history of American labour organisations, entitled *The Labour Movement*, and one of the first trade unionists to urge the eight hour day.—Uriah S. Stevens, a garment cutter of Philadelphia, and founder of the *Knights of Labour* in 1869.—Terence V. Powderly of Scranton, Pa., grand master workman of the *Knights of Labour* from 1879 to 1893.—Adolph Strasser, the virtual creator of the *Cigar-Makers' International Union*.—P. J. M'Guire of Philadelphia, secretary since 1881 of the *Brotherhood of Carpenters and Joiners*.—Samuel G. Gompers of New York, president since 1882 of the *American Federation of Labour*.—P. M. Arthur of Cleveland, O., and chief since 1874 of the *Brotherhood of Locomotive Engineers*.

[Reports, constitutions, and magazines, of the organisations treated, and correspondence with their officials.

George E. M'Neill, *The Labour Movement*.—Richard T. Ely, *The Labour Movement in America*.—*Third Report of the Minnesota Bureau of Labour Statistics*.—*Report for 1892 of New York Bureau of Labour Statistics*.—*Quarterly Journal of Economics*, January 1887, October 1891, July 1893, articles by Carroll D. Wright and Edward W. Bemis.—T. V. Powderly, *Thirty Years of Labour*.—*New York Tribune Almanac* for 1894, pp. 282-283, for list of eighty-one American trades unions, with address of secretaries and approximate membership.—*Third and Tenth Annual Report of United States Bureau of Labour Statistics*.—*Reports of the Bureaus of Statistics of Labour of New York State* for 1894, 1895, and 1896.—*Report of the Michigan Bureau of Labour Statistics* for 1896. *Journal of Political Economy*, June 1894, article, "The Homestead Strike," by Edward W. Bemis.—*Annals of the American Academy*, September 1894, article, "The Relation of Labour Organisations to the American Boy and to Trade Instruction," by Edward W. Bemis.—*The Chicago Strike of 1894*, report of the National Commission of Carroll D. Wright and others.—*Revue d'Économie Politique*, July 1895, article, "The Chicago Strike of 1894," by Edward W. Bemis.] E. W. Be.

TRAFFIC. See COMMUNICATION, MEANS OF.

TRANSFER OR "DEED OF TRANSFER" is the name for an instrument by which a mortgage or other debt or a share or debenture is assigned to a purchaser or devisee. Some companies require transfers to be executed in a special form (see FORGED TRANSFER). E. S.

TRANSFER DAYS are the days on which stock registered in the books of the Bank of England may be transferred. All business days except Saturdays are transfer days, and even on Saturdays transfers may be made on payment of a special fee. E. S.

TRANSFERS, TELEGRAPHIC. See TELEGRAPHIC TRANSFERS.

TRANSHUMANCE is the French name given to the periodical migrations of sheep and cattle from certain regions to others, for instance during summer from valleys to highly situated pasture lands in the mountains. Under this form it is still practised in Provence, Piedmont, and Switzerland, though it is falling into disuse in Southern France, where, however, some villages situated in the alpine region derive an income of 0.75 fr. to 1 fr. (say 7d. to 10d.) per head on sheep pastured on their territory. Since the necessity of replanting the slopes of the Alps became recognised, the French law of 1882 has imposed certain conditions and limitations on the passage and right of pasture of these flocks. Experience, moreover, has shown that it is more profitable to bring cows than sheep into these mountainous regions. Some French villages of the *Département des Hautes Alpes* send during the winter their cows to the neighbouring Piedmontese valleys, where the inhabitants feed them and are paid by the milk.

The system of *transhumance* is only appropriate to a low stage of agriculture, as it is apt to cause extensive damage to the fields through

which the flocks pass. In France landowners have always been able to protect themselves by inclosing their holdings, but in Spain, where this right was denied them, they suffered exceedingly (see MESTA).

In Algeria, numerous tribes of nomadic Arabs still regularly migrate every spring with their flocks of sheep from the boundaries of the Sahara, where they spend the winter, to the high table-land known under the name of *Hauts Plateaux*, and forming a broad zone parallel to the Mediterranean between Morocco and Tunis. As long as these bare and scarcely inhabited plains, held by the Arabs under their system of collective ownership, do not attract European colonisation, these migrating flocks, numbering several millions, will be allowed to continue their wanderings twice in the year, but difficulties will begin whenever European cultivation invades these regions.

[G. Couput, *Les laines et l'industrie lainière de l'Algérie*, Algiers, 1889.—J. Briot, *Étude sur l'économie pastorale des Hautes Alpes*, 1884.—Article "Transhumance" in the *Nouveau Dictionnaire d'Économie Politique*.—Roscher, *Nat. Oek. des Ackerbaues*, pp. 304-306.] E. CA.

TRANSIT, TOLLS ON. See INTERNAL CUSTOMS AND TOLLS.

TRANSPORT, COST OF INLAND. The modern organisation of industry could not have been established without improved methods of communication between producers and consumers. The railway and the factory have gone hand in hand in their development and in their economic results. With the means of transportation which existed two hundred years ago, large industries would have been impossible. The substitution of turnpikes for common roads, of canals for turnpikes, and of railways for canals, was as essential a part of industrial progress as was the development of the steam engine or of the factory system. Each of these improvements meant at once an increased investment of capital, a lessened cost of doing the actual work of transportation, and a vastly increased amount of actual carriage of goods. The large capital made it at once necessary and possible to make lower rates for the sake of developing business. The development of business, in turn, made further investments of capital and further reductions of rates possible. When the railway was first invented it was not thought possible to carry goods at less than 1½d. per ton per mile without serious loss. Twenty-five years ago most of the railway systems of the world were carrying goods at about 1d. per ton per mile. To-day the average rate in France is but ¾d.; in Germany, ⅔d.; in the United States, less than ½d. per ton-mile.[1] Nevertheless, so great has been the increase in traffic that the gross receipts per mile of road at these low rates are in many instances much greater than they had been at the higher rates which prevailed previously. The average freight charges on the New York Central and Hudson River Railway are to-day less than half what they were twenty years ago. But the traffic is four times as great.

Yet these figures by no means measure the full effect of railway transportation in abolishing the effect of distance as a limit to the sale of goods. Only a small part of these charges is actually due to differences in distance traversed. The immediate expense of carriage has decreased even faster than the general expenses of railway transportation as a whole. Every improvement in economy has rendered larger train loads possible without corresponding increase in cost, and has thereby reduced the expense of carrying goods as compared with that of loading or unloading them. A few years ago the carrying capacity of a waggon was not much greater than its dead weight. To-day the former can readily be made twice as great as the latter. In other words, two-thirds of a train load may be made paying weight instead of only one-half. Meantime, the weight of the locomotives has been somewhat increased, with a much more than proportionate increase in the carrying capacity. With a track adjusted to the standard of modern train economy and a reasonably level country, it is possible to carry gross train loads of more than nine hundred tons, of which six hundred may be actual goods carried. Omitting terminal charges and internal, the direct expenses of hauling such a train—train-men's wages, fuel, and other supplies, and repairs of rolling-stock—need not be over 2s. per mile run.[2] Or, by simple division, the direct cost of hauling a ton a mile, independent of terminal charges and interest, is not over one twenty-fifth of one penny. Or, to put the matter in another form, an added distance of one hundred miles haul makes but 4d. per ton difference in the cost of carriage. Conditions like these are not frequently realised, but they represent a possible limit of economy on any road of the first rank, and show how thoroughly railways have supplanted other means of inland transportation in efficiency and economy.[3]

While the cost of haul has been constantly reduced, the terminal charge has remained much more nearly constant. In some instances, with the overcrowding of population in large cities, it has actually increased. Such a state of facts makes equal mileage rates impossible. On a waggon road, or even on a canal, it costs nearly twice as much to carry goods two hundred

[1] The English lines give no figures of ton-mileage.

[2] This is a high estimate. The direct expenses per train-mile on English roads are barely 15d. and on American roads about 20d.

[3] Some of the wheat-carrying roads of the United States realise these conditions on parts of their main line.

miles as to carry them one hundred. On a railway, when once goods have been received, it makes comparatively little difference whether the haul be long or short. In England and America the attempt to base goods rates on a mileage system has been generally discarded. In France and Germany it is still theoretically maintained, but the exceptions are so numerous as to cover much more than half the traffic actually handled.

A more nearly correct arrangement of railway charges is based on a division of expenses into mileage and terminal. Those who would arrange rates on this system hold that the expenses of a railway are roughly divisible into two classes, one connected with the receipt and delivery of goods or passengers, the other with their actual carriage. They believe that fairness requires that each ton of goods should pay a definite terminal, plus a carriage rate proportionate to the distance. Such is the theory on which English railway schedules are arranged. But this system, though much better than the equal mileage plan, does not really meet the facts of the case. A large part of the expenses of a railway are not, properly speaking, either mileage or terminal charges. They do not attach to any particular piece of business, but to the operation of the railway as a whole. Interest on cost of construction remains nearly the same whether the traffic be large or small. Maintenance of way is to be charged by the year rather than by the ton of traffic. All these expenses are indirect, in distinction from the direct expenses of loading and hauling the goods or passengers carried. The consequence is that each railway rate really consists of three parts—a mileage rate for the carriage, a terminal for the expenses at either end, and a tax which the business is made to contribute toward the indirect expenses or fixed charges of the railway as a whole. The amount of such a tax which it is possible to pay depends more upon the value of the goods than upon anything else. Thus we find that all railways, whatever their nominal schedule of charges, actually classify their various shipments, not according to the direct cost of doing the business, but according to the value of the service rendered.

If it were possible to ascertain the cost of doing each piece of business, and to arrange railway schedules accordingly, the regulation of rates would be comparatively simple. But the introduction of this element of taxation complicates the matter almost beyond belief. It is, as Professor Taussig has pointed out (*Quarterly Journ. of Econ.*, v. 438 *seq.*), a case of "joint cost of production" on the very largest scale; one where the general expenses are so great that the apportionment of such expenses to the different parts of the traffic is a matter of vital importance. This work of apportionment or taxation gives the railway authorities a power which they are liable to use in an arbitrary manner. They are guided by the general principle of lowering rates where business will thereby be developed; in other words, where the burden of a high proportionate tax is most severely felt. But in the application of this principle they are liable to make mistakes. Nor has any satisfactory way been found of preventing these mistakes. The older systems of regulation proved illusory. Maxima were of little use, because of the right of the railways to produce inequalities by variations within the maximum limit. This power grew wider from year to year as railway economy became more highly developed, because the difference between the legal maximum and the possible minimum rate increased. Much was expected from competition of different carriers upon the same line. But this also proved futile, because of the superior public economy of having the business concentrated in the hands of one company. Nor was competition between different lines of any more avail. Where it existed at all it drove rates down so low that such points contributed almost nothing to the indirect expenses of the railway. The intermediate points were thus burdened with an undue share of the fixed charges. The growth of cities was artificially stimulated at the expense of the country. The business of large shippers was favoured, while that of smaller ones suffered. So great were these evils that contracts to abolish competition at terminal points by the division of traffic were generally regarded as useful to the public as well as the railways.

When competition was finally recognised as unsuccessful, recourse was had to legislative provisions for enforced equality between different shippers. The Railway and Canal Traffic Act of 1854 provided that no preferences should be given; in other words, that all persons shipping the same goods between the same points should be treated alike. The power to tax must not be used as a means of personal discrimination. The commission appointed under the act of 1873 attempted to carry this enforced equality still further, and to say that no greater aggregate charge must be made for a shorter than for a longer distance over the same line; and still later, that the longer distance must as a rule be charged actually more than the shorter one. Of these two principles the first is, as a rule, right; the second is of doubtful utility. Distance is often so unimportant an element as compared with terminal charges that the system of group rates is often the only practical or logical one. The Interstate Commerce Act of the United States provides that no more shall be charged for a shorter than for a longer distance, but does not forbid the roads to charge as much for one as for the other. The whole tendency of good

railway economy seems to be toward the abolition of inequalities rather than toward allowing either the perpetuation of old ones or the creation of new.

There is no doubt that the abuse of the taxing power may be very much diminished by conservative action on the part of the legislatures and courts. But the continental nations have not been satisfied with this degree of control, and have gone far in the direction of state ownership. Theoretically there are strong reasons for putting the taxing power in the hands of the state, but in practice the dangers of state railway management seem to outweigh its advantages. In the conduct of so complicated a business as railway management, the state officials have the same temptations to inequality as those of private corporations. As the Italian commission of 1881 said well—when a state attempts to tax industry it is more omnipotent and less responsible than a private corporation. The standard of efficiency reached by the continental roads is also far from being equal to those of England or the United States. Nor do the state railways of India or Australia furnish an exception to this rule. State railways sometimes give cheaper rates than private ones, but they rarely give anything like the same quantity of service, nor have they developed traffic to the same degree in proportion to the population. On the whole it may be said that government officials have no such stimulus to efficiency and economy as is felt by the representatives of a private business; and as long as this remains true, many advantages claimed for state railways will be found on closer observation to be illusory. Increased publicity of management and more direct responsibility to certain sections of the public will often do more to regulate abuses in railway management than could possibly be done by the transfer of the roads to government officials; while the difficulties and risks of the latter course would be vastly greater than those of the former.

[Within the limits of this article it has only been possible to touch upon a few of the leading points in the history of transportation rates and their regulation. International comparisons have been but sparingly made because of the different methods of keeping statistics in different countries. A large part of Mr. Jeans's book on railway problems is worse than useless on this account. The leading books on the economic side of the railway question are, for England, W. M. Acworth, *The Railways and the Traders*, London, John Murray, 1890; and Cohn, *Englische Eisenbahnpolitik*, Leipsic, 1874-83; for America, A. T. Hadley, *Railway Transportation*, New York, Putnam's, 1885; for the continent of Europe, E. Sax, *Die Eisenbahnen*, Vienna, 1879; and of a somewhat more technical character, Ulrich, *Eisenbahntarifwesen*, Berlin, 1886. A. M. Wellington's *Economic Theory of Railway Location*, though written for engineers, contains much that is useful to the student of political economy. The reports of the successive parliamentary committees of investigation, of the United States senate select committee on interstate commerce of 1885-86, and of the Italian commission of 1878-81, may also be consulted to advantage.] A. T. H.

TRANSPORTATION, THE ECONOMIC EFFECT OF. In attempting to estimate the economic effect of transportation, two things have to be considered—its effect on the country which transports the convicts, and that on the colony which receives them. To estimate the economic effect on the country which disposes of its convicts in this way is a much simpler task than to estimate the economic effect on the colony. In the latter case so much depends on conditions and methods, many of which have never had a fair trial. Only in England and Russia has the system been carried out with any thoroughness, and in the latter country much is still in the experimental stage. There are two distinct periods into which the history of transportation in England may be divided: (1) from 1619 to 1775, and (2) from 1787 to 1846.

1. In 1619, James I., by sending one hundred dissolute persons out to Virginia, practically converted a law passed by Elizabeth in 1597 for the banishment of rogues and vagabonds into an Act of Transportation. It was not, however, till the reign of George I. that the system came into common operation. The evidence as to the number of convicts transported to the American colonies is conflicting, but Dr. Lang (*An Historical and Statistical Account of New South Wales*) comes to the conclusion that there were in all about fifty thousand. The method used was very simple, and whatever may have been its moral effect, its economic effect would seem to have been beneficial. The English government sold the services of the convicts during their sentences to the captain of the ship which conveyed the convicts to America. He resold them on arrival to the colonists, who employed the convicts to work like slaves under overseers on the plantations. In England, it may be assumed these convicts would have preyed upon the community as thieves or vagabonds, or have been supported by it in prison: in the colonies the conditions of labour were such that no skill was required, while the work could be directed and enforced by an overseer. The fact that the colonists were willing to buy the services of the convicts, and also the fact that they were in the habit of kidnapping free men, shows that such labour was in demand. The resources of a new country made it easy for the convicts to obtain a living when their sentences expired. The evidence as to the extent of the

demand for convict labour is conflicting: in 1692 Maryland prohibited the landing of convicts, but in 1718 mention is made of "the great want of servants in His Majesty's plantations." While a contemporary historian, quoted by Dr. Lang, speaking of the convicts, says "their labour would be more beneficial in an infant settlement than their vices would be pernicious." The inference is that the colonists were glad to have the services of the convicts where no other labour was to be had, but for many reasons slaves, when they became easy to obtain, were more convenient, while it was not considered safe for the latter to see white men working as slaves. If the demand for convicts as labourers had ceased in the colonies, the government would have been obliged to adopt a less simple method of transportation, but the war of independence put an end to the system.

2. Transportation had more influence on the economic development of the Australian colonies. A detachment consisting of six hundred male and two hundred and fifty female convicts founded New South Wales, Van Diemen's Land, and Norfolk Island in 1788. For the first few years the convicts were engaged in clearing the land, making roads and bridges, and building houses. Road-gangs consisting of some of the worst criminals, who were employed in making roads and bridges under the direction of government officials, always remained part of the system. The inevitable hardships of the first few years were greatly increased by the ignorance of the convicts and their dislike of agriculture. In an account of the colony of New South Wales by David Collins, late judge advocate and secretary of the colony, it is stated that "more labour would have been performed in this country by one hundred free people than had at any time been derived from three hundred convicts." In 1795 convicts were, for the first time, assigned to settlers as servants. As this was the most economical way of disposing of the convicts, the government was willing to give large grants of land to any respectable settler who would employ the convicts, but the supply was generally greater than the demand. The great number of capital sentences before the amelioration of the law through the exertions of Sir S. Romilly (commenced 1808), and of consequent commutations into imprisonment for life, *i.e.* life sentences, led to an increased need for disposal of long-sentenced prisoners. There were 1314 sentences to death in 1819 (66 in 1849), and often 2000 to 3000 convicts were sent out in a single year. Gov. Macquarie (1805-1821) considered that the colonists only needed one-eighth of the convicts. This system of assignment has been allowed, even by the opponents of transportation, to have been beneficial from an economic point of view. Owing to the thinness of the soil, flocks were scattered, and shepherds in great request. The isolation of a shepherd, and the fact that his calling required no skill, were conditions favourable to convict labour. In 1849, when for moral, civil, and political reasons the rest of the colony of New South Wales was opposed to the continuance of transportation, the squatters, in a letter to Charles Buller, M.P., pleaded for its continuance on economical reasons: the cost of a convict, they asserted, was £10 a year less than that of a free labourer. The conditions of labour in towns were not so suited to the employment of convicts. Mechanics and clerks would not use their special skill without the hope of some reward. In this case, the effectiveness of transportation as a means of colonisation was opposed to its effectiveness as a punishment. As soon as free mechanics settled in New South Wales, the class of convict mechanics entirely disappeared. The condition of the emancipated convict was in every way satisfactory from an economic point of view. On his release he was given thirty acres of land, or fifty if married, and ten extra for every child. The large fortunes which were made by the convicts formed one of the chief objections urged by its opponents against transportation as a punishment. The small number of women convicts, however—in 1840 there were only seventeen women to one hundred men—interfered with the efficiency of the system as a means of colonisation. In attempting to sum up the effect of transportation on the Australian colonies, the same terms may be found applicable which were used to express the effect of the system in the American colonies. The labour of the convicts was economically beneficial to the colony, both in founding and developing it, where no better labour was to be had. Where other labour was to be had, there was no longer a demand for the services of the convicts, except as shepherds where the flocks were not valuable. As early as 1838 there was a demand in New South Wales for ten thousand free labourers, and for only three thousand convicts. In England, during this period, two points in connection with the economical effect of the system were the subjects of dispute. It was denied that it had a deterrent effect: it was also declared to be unnecessarily expensive. In the first case it was a serious drawback from the economic point of view, if it led to more citizens becoming chargeable to the community, but there is no sufficient evidence to show that this was the case. The evidence as to the expense is most conflicting. The following statement is taken from the Report on Transportation. From 1786 to 1837, one hundred thousand convicts were transported from this country to the Australian colonies.

Cost of transport	£2,729,790
Disbursement for general convict and colonial services	4,091,581
Military expenditure	1,632,802
Ordnance	29,846
Total from 1786 to 31st March 1837 . .	£8,483,519
Deducted for premium on bills, coins, etc.	507,195
	£7,976,324

In 1840 transportation to New South Wales was suspended. It was continued for a short time to Van Diemen's Land. As the result of an inquiry, undertaken in 1857, showed that there was no suitable place to which convicts from England could be transported, no more experiments are likely to be made. Western Australia was a stopgap for a short period, when the more settled

Australian colonies objected. The Cape Colony successfully resisted a proposal to send there. In 1846 the system came to an end. The Australian objection now extends to the French use of New Caledonia, because of the escape of convicts thence.

At the present time Siberia is the only colony to which convicts are transported, with the exception of some penal settlements belonging to Spain in Africa, and also the French penal settlements in New Caledonia and French Guiana. The latter have been described as "prisons at a long distance from home." The evidence as to the economic condition of the Siberian convicts is scanty and conflicting. According to Mr. de Windt, it is obviously apparent to any one who has studied the Siberian exile system without bias that the object of the government is not so much to punish crime as to colonise Russian Asia. With this purpose in view the convicts are in many cases retained in prison for a very short part of their sentences, and every convict on release is given as much land as he can cultivate. But, according to Dr. Lansdell, this system is not always successful: the peasants will not allow their daughters to marry convicts, and the latter do not as a rule reform. In the island of Sakhalin, however, the case would seem, according to Mr. de Windt, to be somewhat different; the Government, besides granting the convict land, lends him a sum of money, and this money is as a rule returned. As convicts of Russian nationality are never allowed to leave the island, and as escape is almost impossible, the conditions are somewhat different from those on the mainland. The worst feature of the Siberian system would seem to be the want of employment for the convicts; while in prison most of them are quite idle. The silver mines of Nertchinsk are now the only ones in Siberia where convict labour is employed, the rest of the mines are falling into private hands. Even the Nertchinsk mine cannot be said to be productive; three to four thousand prisoners are employed, and in 1893 the output of the entire district did not amount to one ton. Although convicts have been sent to Siberia since the middle of the 17th century, owing to the drawbacks in the climate, the want of civilisation in the natives, the extent of the country, and the want of means of communication, the system would seem not to have achieved at present any definite economic effect, except in the island of Sakhalin, which would seem to be well cultivated by the convicts. The expense of such a system must be very great, and the different reasons for which people are sent to Siberia would make the economic effect of their absence from Russia difficult to determine.

Transportation in itself can hardly be said to have any distinguishing economic effect. Everything depends upon methods and conditions. It is evident from the above sketch of the history of the system that only some of the former have as yet had a fair trial.

[There is no work on the subject, and but little attention seems to have been paid to the economic point of view in books on transportation. The chief authorities are:—J. Hill Burton, *Emigrant's Manual*, 1851-52, esp. N.S.W. p. 17, Tasmania, p. 105.—Dr. Lang, *Transportation and Colonisation: An Historical and Statistical Account of New South Wales*, 1875.—Whately, *Remarks on Transportation*, 1834.—*Report of the Select Committee of the House of Commons on Transportation*, 1838.—Captain Maconochie, *Australiana: or Thoughts on Convict Management*, 1838.—*Letters to Charles Buller, junior, M.P.*, from "The Australian Patriotic Association," 1849.—H. de Windt, *The New Siberia*, 1896.—*Siberia as it is*.—Henry Lansdell, *Through Siberia*, 1882.] F. M. B.

TREASURY.

Treasury, p. 578; Treasury Bill, p. 579; Treasury Bond, p. 579; Treasury Department of the United States, p. 579.

TREASURY.—This department of state is generally looked upon as the chief of the departments of the British government, having at its head two great parliamentary officers, the first lord of the treasury, who usually leads the government of the day in the House of Commons, and the chancellor of the exchequer, who is responsible for the national budget and finance. In this department the budget of each financial year is prepared and settled, the estimates, when passed, are administered, and all questions of national finance and currency ultimately considered. Under its general supervision are all the revenue departments, the MINT, the General Post Office, and various minor offices.

The first germs of the present treasury office are to be found in the EXCHEQUER (*q.v.*), to which office the lord treasurer was in early times attached. The treasurer tended to become the most important of the exchequer officers, having duties in both courts—that of account and that of receipt. In early times he was empowered to appoint a vice-treasurer. The chancellor of the exchequer appears to have been originally an officer appointed with a view of controlling the treasurer. The earliest record of such an appointment is in Henry III.'s reign (1234 A.D.); the present functions of the chancellor seem to have taken their rise in Henry VIII.'s reign when he was also appointed under-treasurer.

The office of treasurer was first vested in a board of commissioners by James I. in 1612, and this paved the way for its separation from the office of exchequer, which may be considered to have been completed about 1660.

The exchequer from that time became the subject of considerable attempts at reorganisation by act of parliament, notably in 1688 and again in 1782 (Burke's Act); though the first comprehensive effort of this kind was the act 57 Geo. III. c. 84, which enacted that the duties of the officers of his majesty's exchequer should henceforth be discharged in person, and that the persons so discharging them should be unable to sit in parliament. In 1866 the old exchequer was formally abolished and the new exchequer and audit office arose (see AUDIT OFFICE).

The treasury proper, since 1714, has been administered by a board of lords commissioners consisting of the first lord, the chancellor, and two or three junior lords, the exact number not being fixed. The junior lords are nominated by the first lord.

The first lord as a rule takes no part in the general administration of the department: he is concerned chiefly with the patronage of the board and the general business of the government. Nor since 1856 has it been the practice of the board to meet except on quite extraordinary occasions.

The chancellor, who is still also by a separate patent appointed under-treasurer, is for all ordinary business purposes the parliamentary head of the treasury. He is responsible for the annual budget of revenue and expenditure (see BUDGET) and the general finance of the country.

The junior lords may take a certain share of the treasury business from time to time, but their position is mainly political.

More important in practice are the two offices of secretary to the treasury; one that of financial secretary, the other that of the patronage secretary, thus corresponding to the financial and political sides of the department which have been already indicated.

The permanent staff of the treasury, on whom the brunt of the annual work must necessarily fall, whatever ministry may be in power, consists of a permanent secretary, a financial secretary, an auditor of the civil list, four principal clerks, and various senior and junior clerks.

[Madox, *History and Antiquities of the Exchequer*, 1711.—Anson's *Law and Customs of the Constitution*, pt. ii. pp. 164 *et seq.*] C. A. H.

TREASURY BILLS. Part of the FLOATING DEBT (*q.v.*) is raised by the issue of treasury bills pursuant to 40 Vict. c. 2, as amended by 52 Vict. c. 6, § 5. These bills are distinguished from the EXCHEQUER BILL (*q.v.*) by the fact that the maximum period of their currency is twelve months, and that they are as a general rule issued for much shorter periods. They enable the government to borrow money at very low rates of interest, but it would not be advisable to issue a very large amount, as it might be difficult to renew bills falling due at a time of financial pressure or to find means to meet them. E. S.

TREASURY BOND is a term chiefly used in the United States: it answers pretty closely to our EXCHEQUER BOND (*q.v.*), that is to say it is a security issued by the public treasury for moneys lent to the government for a limited period, and not as part of the permanent debt of the nation.

A similar name is sometimes given to securities of certain British colonial governments, which are intended to have a limited currency. C. A. H.

TREASURY DEPARTMENT OF THE UNITED STATES. Between 1776 and 1789—the date of the present constitution of the United States—the treasury business of the government was loosely managed, and, for most of the period, without any real concentration of authority. During the war of independence, financial affairs were first entrusted to two treasurers, then to a standing committee of congress known as the treasury board, and finally, in 1781, to the superintendent of finance. In 1789, by the act of 2nd September, with the new form of government, the treasury department was established with a single head styled secretary of the treasury, not, however, without opposition, on the ground that it was unsafe to trust such important powers in the hands of one man. The secretary of the treasury was authorised to prepare plans for the management of the revenue and the support of the public credit, to report budget estimates, to superintend the collection of the revenue, to decide upon methods of keeping accounts, and to execute laws relating to the sale of public lands. It is to be noted that this secretary, unlike the others, reports directly to congress instead of to the president. It was further provided by the act of 10th May 1800 that the secretary should lay before congress at the beginning of every session a financial report, thus making a series of annual documents which now constitute a record of the financial history of the government. The other officers named in the original act of establishment were a comptroller, auditor, treasurer, and registrar. In brief, the comptroller looks after the propriety of the accounts; the auditor, that they are presented in proper clerical form; the registrar, that the vouchers and bills are preserved; and the treasurer, that no money leaves the vaults save by proper warrants. The treasury department is the settling office of all the accounts of the other departments of the government. In the fundamental principles as thus provided by the act of 1789, and in the methods as initiated by the first secretary, Alexander Hamilton, there has been but little change. The treasury department has grown to large proportions, and now includes a great variety of bureaus, such as the mint, internal revenue, comptroller of the currency in charge of the national banking system, the bureau of engraving and printing, marine hospital service, revenue cutter service, including the patrol of the fur seal fisheries, lighthouse service, life-saving service, steamboat inspection office, coast and geodetic survey, office of supervising architect, and the commissioner of navigation. The number of comptrollers and auditors has varied at times with the increase of business; but by the important act of 31st July 1894 the number of comptrollers was fixed at one, and the auditors at six. In general, each auditor settles the accounts of one department.

None of the principal officials can have any connection with commerce, vessels, public land, or any public property. The treasury department through its various bureaus and divisions of work has its ramifications all over the country. In the customs administration there are over one hundred ports of entry, at each of which there is a collector of customs who is the chief officer of the port. Under his direction is the surveyor or chief out-door officer, and, in addition, the naval officer who verifies and countersigns many of the more important acts of the collector in estimating, levying, and liquidating duties. In 1896 there were 847,203 entries; the average number of persons employed in this branch of service was 5085; and the cost of collecting duties of the country as a whole was 4·28 per cent. In the internal revenue department there were, in 1896, 63 different districts for the collection of duties on tobacco, beer, spirits, oleomargarine, and playing-cards. The percentage of cost of collection in this branch of service was 2·78 per cent. The number of national banks supervised by the comptroller of the currency, 31st October 1896, was 3679, and under this office are examiners constantly engaged in the investigation of the management of these institutions. Upon failure of a bank a receiver is appointed by the comptroller. For the mint bureau, see article MINT, UNITED STATES. The other bureaus referred to are not so closely identified with the economic and financial interests of the country, and further reference is therefore omitted here.

Originally the funds of the government were kept in the First United States Bank, 1791-1811; the Second United States Bank, 1816-36; or in the state banks, known in Jackson's administration as the "pet" banks. By the act of 1846, however, the independent treasury system was established, by which the government takes care of its funds in its own depositories. Such depositories at the present time are the treasury at Washington, and nine sub-treasuries under charge of assistant-treasurers. National banks are also permitted to hold government funds on deposit. For an exhaustive treatment of this branch of administration, see *The Independent Treasury System of the United States*, by David Kinley, New York, 1893. D. R. D.

TREATIES. See COMMERCIAL TREATIES.

TREITSCHKE, HEINRICH VON (1834-96), was the son of a general in the Saxon army. He became privat-dozent in history at Leipzig in 1858, and professor at Freiburg, Baden, in 1864, and in Berlin 1874.

In 1874 his growing dislike of socialism led him into a warm controversy in the *Preussische Jahrbücher*, July and September 1874, with Prof. Gustav Schmoller, who replied in Hildebrand's *Jahrbücher für Nat. Oek. und Statistik* (vols. xxiii. xxiv.). Their discussions grew into two volumes, *Socialismus und seine Gönner nebst einem Sendschreiben an G. Schmoller*, H. von Treitschke, Berlin, 1875.—*Ueber einige Grundfragen des Rechts- und der Volkswirthschaft, ein offenes Sendschreiben an Herrn Prof. Dr. H. von Treitschke*, Gustav Schmöller, Jena, 1875. Treitschke's brilliant style was undoubtedly in his favour. His merits as a historian are generally recognised. He was intensely patriotic. [See *English Historical Review*, October 1897, "Heinrich von Treitschke," by J. W. Headlam.] J. B.

TRESPASS. A name formerly applied to a variety of torts, *i.e.* delicts or civil injuries (see TORT). It is now commonly used to denote the wrong which consists in entering upon another man's land without lawful authority. Such entry does not in itself constitute a crime, and the familiar notice "Trespassers will be prosecuted" is therefore absurd; but it will support a claim for damages in a civil action: F. C. M.

TRET. See TARE AND TRET.

TRIAL OF PYX. See PYX, TRIAL OF.

TRIAL PLATE (ASSAY). A thin sheet of gold or silver of the standard fineness, from which portions can be cut to be used as check pieces when conducting assays.

In connection with the assays of coins, such plates have been in use for many centuries; the oldest trial plate of which record exists being a silver one of the reign of Henry III. (reigned 1216-1272). The practice of referring to trial plates of standard metal as reliable guides is however open to objection, because of the difficulty of preparing alloys of a precise standard and of absolute uniformity of composition. The latter quality is practically unattainable in the case of silver of the English standard of 925, owing to the operation of certain molecular changes (known as liquation), which take place while the alloy is cooling, after having been melted and mixed in the due proportions. The preparation of an accurate gold trial plate is not accompanied by any such inherent obstacle; nevertheless many of the old gold trial plates have, on careful examination, proved to vary to some extent from absolute uniformity of composition throughout the entire plate. A standard gold plate, however, which was prepared in the mint in 1873, did not vary from the exact standard to a greater extent than a two ten-thousandth part.

The difficulty in obtaining absolute accuracy in an alloy has led to the adoption in recent years, by the assay department of the royal mint, of test pieces of *pure* gold and silver, instead of standard metal, and fine gold and silver trial plates were prepared in the mint in the year 1872. Portions of these plates are still in use in the department.

The remains of the old trial plates, formerly kept in the Pyx Chapel Abbey, Westminster Abbey, were transferred to the custody of the mint in the year 1842. F. E. A.

TRIBAL SYSTEM, THE. Under this heading is loosely embraced the body of customs by which tribal societies are governed under their tribal chieftains. Each tribe has its own customs, and there are therefore many tribal systems, but they resemble one another in their main features. The more nomad and pastoral a tribe may be, the more primitive, and, in a sense, tribal, are its customs. And as from contact with the outer world, or conquest, or increased population, the stage of settlement and settled agriculture is reached, modifications take place, and often the village form of settlement becomes predominant. In VILLAGE COMMUNITIES (*q.v.*) many principles based on older tribal customs survive with modifications. Especially in India the gradual recognition of these tribal elements has been important. One tribe, *e.g.*, conquers another and takes by way of tribute part of the land or a share in the produce. The lordship becomes divided into innumerable shares in course of time, and the necessity for a village accountant arises to divide the tribute, thence under English rule the difficulties of land settlement (see under ZEMINDAR). Much information on the general subject, and especially as regards India, is contained in Sir A. C. Lyall's *Asiatic Studies*, Mr. B. H. Baden-Powell's *Indian Village Community*, and Sir H. Maine's *Early History of Institutions*.

As regards British tribal systems, the chief original sources of information are the *Brehon Laws* of Ireland and the *Ancient Codes* of Wales. According to the latter, Cymric tribal society was held together by the bond of blood relationship. The chief unit of organisation was the kindred—embracing descendants of a common ancestor to the ninth degree. And within this larger kindred, under its head chieftain, were smaller inner kindreds and family groups embracing the descendants of a common great grandfather. This inner kindred, called a *gwely* or *wele* (*lectum* or bed), formed the unit *inter alia* for land holding. In the extents made after the final conquest of North Wales, 1283 A.D., Ed. I., these holdings—mainly consisting of rights of grazing of the tribesmen's herds of cattle—are still described as *gwelys* bearing the name of the ancestor—the gwely of so and so—though he may have been long dead; and within this head gwely are described the sub-gwelys or *gavels* of his sons and grandsons and great-grandsons. The head gwely held together, according to the codes, till the great-grandsons divided, they being entitled *per capita*, and not *per stirpes*. At the time of the extents the rights of the tribesmen *inter se* were so fully recognised that a gwely or group of tribesmen with its herds of cattle could be removed from one district to another and possess in the new locality the same rights *inter se* as in the old one. And according to the ancient codes it would seem that whilst the landed rights were vested in the head of the gwely, his descendants had rights of maintenance under him on attaining a certain age independently of their parents. Under this system strangers in blood or non-tribesmen were grouped together in what were called *taeog-trevs*, and held *per capita* in equal shares, but after three generations the descendants of a common ancestor often formed a gwely as in the case of the tribesmen. These groups of non-tribesmen were *adscripti glœbe*, and paid food rents to the chieftain. The free tribesmen also contributed *guestva* or food gifts. The chieftain and his retinue on his hunting and hawking expeditions were quartered on the tribesmen and non-tribesmen according to fixed tribal custom, but already the substitution of money payments in lieu of tribal dues was becoming usual at the time of the Conquest. These tribal customs were not abolished till the "Statute of Wales" under Henry VIII. And it was not till the lawyers of Queen Elizabeth substituted leases for lives for the confused Welsh tenures that the system finally died out.

Much remains to be done before the descriptions of Cæsar and Tacitus of the tribal systems of the Germans and Gauls are understood, and before the contribution of tribal custom towards mediæval institutions can be fully appreciated.

[See Mr. F. Seebohm's *Tribal System in Wales* (1895), and for the way in which the Tudor lawyers dealt with the confused débris of this system after the "Statute of Wales," see the *Report of the Welsh Land Commission* (1896), pp. 133 *et seq.*; see also Mr. Herbert Lewis's *Ancient Laws of Wales* (1889), and Mr. A. N. Palmer's *History of Ancient Tenures of Land in the Marches of N. Wales*. As regards the Brehon Laws of Ireland, see the prefaces to the vols. already published of the *Ancient Laws of Ireland* and E. O'Curry's *Manners and Customs of the Ancient Irish*, edited by Sullivan (1873). As regards Gaul, see the works of FUSTEL DE COULANGES, and of Jubainville; and as regards Germany, the great work of Meitzen, *Siedelung und Agrarwesen der Westgermanen und Ostgermanen*.

For comparative purposes the following works may be consulted: Kovalewsky's *Droit coutumier Ossetien* (Paris, 1893); H. E. Seebohm's *The Structure of Greek Tribal Society* (1895), and Dr. A. H. Post's *Ueber die Aufgaben einer allgemeinen Rechtswissenschaft* (1891).]

TRIBUTARIUS. Under the Roman empire *tributarii* were free husbandmen who paid to their lord a share of the *tributum* due from him to the emperor (*cod. Theodos.*, xi. tit. vii. 2). There is evidence (v. tit. iv. 3) that the inhabitants of newly conquered districts were frequently transplanted to serve as free *coloni* or *tributarii*, so that, as Seebohm remarks, the Roman villa under its *villicus* began to wear the aspect of the manor of a later date.

Ammianus Marcellinus (xxvii. 8, § 7) mentions *tributarii* in Kent in 368 A.D. Ducange states that they were bound to servile work. R. H.

TRINODA NECESSITAS. See FYRD.

TRIPLE ASSESSMENT is the name given to Pitt's scheme for raising additional supplies in 1797; it formed the basis of the act 38, Geo. III. c. 16. It was adopted in order to prevent any further accumulation of the FUNDED DEBT. Pitt thought he could, by means of it, draw a considerable contribution from a class both willing and able to pay without pressing upon the labouring classes.

The ASSESSED TAXES at that time were of two sorts—(*a*) the tax on windows, first imposed in 1696, and the INHABITED HOUSE DUTY, first imposed in 1778, both of which had, from time to time, been rearranged since their first imposition; (*b*) taxes on coaches and carriages, male-servants, carriage and saddle horses, dogs, watches and clocks, imposed at various times in the second half of the 18th century.

Pitt now divided the assessed taxpayers into two new classes; those who were assessed to the duties on houses, windows, dogs, or clocks, or watches, and persons who were assessed to the duties on male-servants, carriages, or pleasure horses.

Persons of the first of these classes, assessed to an amount less than £1, were to be exempt from any additional duty; but if to that or a greater amount, they were to pay as follows:—

If the existing amount was	
Under £2	¼ part thereof addl.
If £2 and under £3	½ " " "
" 3 " " 5	¾ " " "
" 5 " " 7:10s.	the amt. add.
" 7:10s. " 10	1½ times "
" 10 and " 12:10s.	2 " "
" 12:10s. " 15	2½ " "
" 15 and " 20	3 " "
" 20 " " 30	3½ " "
" 30 " " 40	4½ " "
" 40 " " 50	4½ " "
" 50 and upwards	5 " "

Persons of the second class were to pay an additional duty on the amount of the last assessment in the proportions following.

If the existing rate were	
Under the amt. of £25	3 times the amt. add.
If £25 and under £30	3½ " " "
" 30 " " 40	4 " " "
" 40 " " 50	4½ " " "
" 50 and upwards	5 " " "

The fact that the additional amount to be paid by persons of this class was never less than three times the amount of the existing rate, caused the scheme to be named Triple Assessment.

Special provision was made for lodging-house and shop keepers. If they were assessed to an amount less than £3 to the duties on inhabited houses, windows, dogs, and watches, they were exempted from any additional duty. If the amount were £3 and less than £5, they paid one-tenth part thereof additional; if £5 and less than £7:10s., one-fifth part thereof additional; and so on in a regular scale to those assessed to an amount of £30 and upwards, who paid twice the amount additional.

The additional duties were to be paid in six instalments in the year. To prevent evasion they were based on past and not on future assessments.

Persons whose annual income was less than £60 were exempt from the additional duties; where it amounted to more than £60 they were entitled to abatements according to certain gradations of income. There were twenty-nine grades. The first applied to persons having incomes of £60 and under £65; they might claim such an abatement as would reduce the tax to a 120th part of their income. The 28th applied to persons having an income of £195 and under £200; they might claim a reduction in the duty to an eleventh part of their income. Finally those who had incomes of £200 and upwards could claim to have the tax reduced to a tenth part of their income.

To obtain such exemption or abatement the person claiming had to appeal to commissioners appointed for the purpose and to produce at the same time a signed declaration attested by two witnesses in the form set out in the schedule to the act. The claim was in no case to be allowed unless verified on oath or affirmation. The schedule also contained rules for estimating the incomes of persons appealing against an assessment under the act, and rules setting forth in what cases and on what account any deductions might be made in estimating "fair" income.

The scheme was based on the assumption that the assessed taxes were a true measure of expenditure, and expenditure a true criterion of income. The objection to a direct income-tax seems to have been that it required a disclosure of the pecuniary circumstances of the taxpayer, which, in the language of the protest by Lords Holland and Oxford (*Journals of the House of Lords*, vol. xli. p. 466), "is contrary to the customs and prejudices of Englishmen, and repugnant to the principles of the constitution." But, in spite of this objection, Pitt's legislation required such a disclosure where a taxpayer desired any exemption or abatement.

The method of raising supplies by increasing the assessed taxes was not new. On three occasions an additional tax of 10 per cent had been imposed on the existing assessed taxes. But the system of graduated taxation introduced a new principle into English finance. Triple assessment was a failure; it yielded considerably less than Pitt expected, and was abolished the following year, a direct INCOME-TAX being then substituted.

[*The Statutes—Parliamentary History*, vol. xxxiii.—Stephen Dowell, *History of Taxation and Taxes in England*, 2nd ed., 1888.] G. I. T.

TRIPLE CONTRACT. See ECK., J.; MAJOR, JOHN.

TRONAGE. The mediæval English term for the charge made upon the compulsory weighing of coarse goods at the public Great Beam (or Tron), as well as the right to demand such a payment.

It would seem that while the small beam was used for weighing certain fine wares, dealt in by the pound, the Great Beam was used for those sold by the wey, hundred, quarter, stone, and other heavy weights (see MEASURES AND WEIGHTS). The most important, evidently, was wool for export, and for this there was probably a special beam at all the chief ports, as we know there was in London. The right to maintain such a beam, to compel its use, and to make a charge for the service, belonged to the king, who, of course, could grant it or farm it out to a subject. In London the right was for a long time shared between the city and the Grocers' Company. The name of the beam survives in the Tron Church, built on the site of the Tron of Edinburgh.

[The matter is not free from obscurity, and has not yet been sufficiently investigated. For London a good deal of material will be found in the *Liber Albus*, Stow's *Survey*, and Herbert's *Livery Companies*. For amercements inflicted upon butchers for selling tallow "without visitation of the tron of our lord the king," see W. Hudson, *Leet Jurisdiction in Norwich* (1892), 52, 60. Other references are given in Ashley, *Economic History*, and Mrs. Green, *Town Life in the Fifteenth Century*, ii. 27, 28. Compare for Germany Maurer, *Geschichte der Städteverfassung*, § 407.] W. J. A.

TROTTER, SIR COUTTS, Bart. (1767-1837), for many years a principal partner in Coutts's Bank, began his career in the navy pay office and entered the bank in 1793. He wrote a pamphlet:

The Principles of Currency and Exchanges applied to the report from the Select Committee of the House of Commons appointed to inquire into the high price of Gold Bullion, London, 1810, 8vo —"no excess in the paper circulation of the country"; "there is a sufficient check and control in the issues of paper"; "the currency of the country is in no way depreciated by the use of paper"; "the high price of bullion is owing to the present state of the foreign commerce of the country combined with its foreign expenditure"; "our present unfavourable exchanges are in no way caused by our paper currency" (p. 5).

[*Annual Register*, 1837, p. 203.—*Gent. Mag.*, Oct. 1837, p. 423.—Jerdan's *Autobiography*, 1852, ii. 214-29.] H. R. T.

TROY POUND. See POUND.

TRUCE OF GOD. The horrors of mediæval warfare produced from time to time strong reactions in favour of peace. One of these gave rise to the famous *Pax Dei* or *Treuga Domini*.

About the end of the 10th century it was reported in Aquitaine that an angel had brought from heaven to a certain bishop a written command that men should abstain from wars and fightings. The story was generally believed; the clergy everywhere preached peace, and the people received their message with enthusiasm. At the council of Charroux, held in 989, it was agreed that for five years hostilities should cease. The undertaking was to be renewed at the end of every quinquennial period; but it next emerges, not as a solemn covenant to refrain from all war, or even all private war, but as an agreement to keep the peace from the evening of Wednesday till the morning of Monday, these days being sanctified by the institution of the Lord's Supper, His crucifixion, His rest in the grave, and His resurrection. From Aquitaine the truce spread to Burgundy, and from thence to other lands. Popes confirmed it; the church threatened with excommunication those who broke it; and it was enforced by council after council up to and including the third Lateran council of 1179. The period of its general reception is stated to have been the middle of the 11th century. Normandy, which was one of the last countries to adopt it, was convinced in 1042, when the council of Caen decreed that for four days and five nights in each week men and women should abstain from violence against their fellows. However imperfectly the Truce of God was observed, its adoption was a great triumph for Christianity and the Western Church.

[See Ward, *History of the Law of Nations*, ch. xiii., London, 1795.—Freeman, *Norman Conquest*, ch. viii., Oxford, 1877.—Milman, *Latin Christianity*.] T. J. L.

TRUCK.

Truck, p. 583; Truck Acts, p. 584; Fines and Deductions, p. 584; Truck System, p. 586.

Truck (French *Troc*) signifies barter. The existing statutes dealing generally with the "truck system," or the practice of paying wages otherwise than in cash, are the Truck Acts 1831, 1887, and 1896.

According to these acts any contract between employer and workman is illegal, null and void, if it provides for the payment of the workman's wages otherwise than in the current coin of the realm, or contains a stipulation respecting the place where, the manner in which, or the person with whom the wages shall be spent; and an employer entering into a contract declared by the acts to be illegal, is subject to a penalty. A qualified exception, however, is made in the case of agricultural labourers, with whom farmers may still contract to supply them with food, non-intoxicating drink, a cottage, or other allowances or privileges, in addition to money, as part of their wages.

It is further provided that no employer is to be permitted to make deductions from the monetary wages he has contracted to pay merely on the plea of having paid an equivalent in another form. It has been held that this

provision does not prevent him from imposing certain disciplinary fines upon his workmen and deducting the amount from their wages, or from contracting with them for periodical deductions for workroom, gas, firing, the use of machinery, and the like; but the Truck Act 1896 now provides that such deductions shall not be made unless certain stringent rules are observed in connection therewith. Deductions in respect of certain other classes of allowances, such as medicine, horse's fodder, tenancy of a house, and meals eaten on the employer's premises, with the written consent of the workmen, are expressly authorised by the former acts. It is to be observed that, inasmuch as the value of the allowances must be expressed in terms of money before it can be deducted from the monetary wages, the limited sanction which the acts grant to certain deductions is not necessarily inconsistent with their general policy of recognising no form of industrial remuneration but cash. Except in the case of agriculture, workmen's wages must always be estimated, though they need not always be paid, in money. The acts already contain several provisions for securing the fair valuation of the allowances in respect of which deductions are made; but on this point the law is considered by some to be defective.

Provisions analogous to some of those of the truck acts are contained in the Coal Mines Regulation Act 1887, the Hosiery Manufacture (Wages) Act 1874, and the Payment of Wages in Public-Houses Prohibition Act 1883. T. G. S.

TRUCK ACTS. *Fines and Deductions* are practically the only forms in which truck survives. For though occasionally a conviction still occurs for payment of wages in goods instead of money, such a case is unusual, and may be regarded only as a survival of an obsolete system. Fines and deductions, however, prevail widely, and are still of considerable importance as affecting the rate of wages in many classes of occupations.

In the case of industries isolated in a remote town or village, even the tommy-shop sometimes still exists, as in some chair-manufacturing villages in the Chiltern Hills, or small tailoring establishments.

Deductions may be classified as follows:—(1) deductions for things supplied to enable the worker to do his work, as tools, materials, help, or a workroom; (2) deductions for things supplied to the worker as part reward for his labour, as insurance, a house, funeral benefit, etc.; (3) deductions in respect of fines. Deductions of the first class are clearly survivals of the domestic system of industry. The idea that each worker was a manufacturer selling a finished product—and not merely the temporary use of his strength and skill—and himself providing the requisites of production, having lasted on after the introduction of machinery, had resulted in the drawing together of the isolated craftsmen into the factory. As an illustration of this the following "rules" from the "Price and Size List," agreed upon between masters and men in the bolt and nut trade, 17th August 1881, may be given: (i) "where fan blast is used, each hand to pay 1s. 6d. per week; (ii) each hand to pay 4d. per week for having the breeze wheeled to his hearth ready for use; and (iii) for having his hearth cleaned weekly; (iv) all work rejected by the employer or manager as useless to be put on the scrap heap in presence of the maker, and the value of the spoiled iron and breeze to be then and there assessed and agreed upon, and the same to be deducted from the maker at the first pay-day; the waste to be the property of the workman after he has paid for it." Here, apparently the material is supplied by the firm, except that in the case of spoiled work the worker pays for the material wasted, and becomes the owner of the waste. But the workman pays for the cleaning of his hearth, a modified form of rent for his place in the workroom, and for his share of the common machinery. A nut and bolt is a modified nail, and the Commission on Truck, 1871, gives us a picture of this older trade as still in the "domestic" stage, and consequently here we find the workman bearing all the charges which fall upon the manufacturer. On Saturday or Monday the nailmaker obtains from his employer the bundles of metal which are to be used during the following week, and, with the help of his wife and children, works at them in the little smithy attached to the hovel in which he lives, carrying back his tale of nails at the end of the week. It has everywhere been the endeavour of the workman, having lost the opportunity to earn profits, to rid himself also of the responsibility of the *entrepreneur* and of risks which properly fall on profits; hence his hostility to all forms of deductions. Deductions for materials and tools have frequently been a pretext for fraud on the part of the employer, who attempted to make a profit on the sale of materials to the workman, or on the use of machinery, *e.g.* the rent of knitting-frames. The Truck Act, 1896, makes it illegal for an employer to make any profit on materials supplied. His only inducement to supply them is therefore such advantage as he may obtain by insuring the use of proper materials in his business.

The second class of deductions—things supplied as part reward of labour—seems to be based upon the idea of the paternal responsibility of the employer. They were at one time numerous, and were very liable to abuse by unscrupulous employers. The pernicious results, for example, of deductions for house-rent are shown in all reports of select committees or commissions on truck. But by the Truck Amendment Act, 1887, all deductions of this class, except those for benefit societies and for schooling, were made illegal. Deductions for school have ceased with the introduction of free elementary education. Deductions for benefit societies of various kinds are now the only deductions of this class which remain, and they are of importance because they have shown a tendency to increase in recent years. All the great railway companies have one or more benefit, accident, or superannuation funds. The practice of establishing such funds has also been taken up by corporations, as well as by some private and many public firms. The sums deducted are not of course, as in the case of other deductions, altogether lost to the workman, but constitute a contingent reward of labour, the real rate of wages being sometimes actually increased by the contributions of employers to such funds. Compulsory deductions for benefit societies are often defended on the ground that expenses of collection and management are thereby saved to the worker, members are protected against the improvidence and carelessness of fellow-members, since arrears are impossible under this system, and the improvident men are coerced for their good. On the other hand, they are objected to because of the hold they give the employer over the worker, and because of the inconvenience arising from change of employment where they exist. Trade union executives and officials have always opposed them. In reference to their influence Mr. Mason, solicitor to the London and North-Western Railway Company, said in his evidence before the select committee on the Employers' Liability Act (1880) Amendment Bill, 1886: "It has been the object of most railway companies to make their service a permanent service for the men, and it is with that object that they have fostered and encouraged their provident societies and pension societies, and, for the higher classes of clerks, superannuation societies."

An important question arises. Are such deductions regarded as deferred payment of wages, or as being the property of the employer? Two illustrations may be given of the confusion which exists on this point. In a strike in 1897 a railway company threatened to forfeit a compulsory benefit fund, thus treating it as their own property and not that of the workmen who had contributed towards it. A form has come into

use which is passed through parliament without question whenever a corporation desires to start a benefit fund. It provides that in case of sickness, death, or dismissal a man or his representatives is entitled to receive from the society the sum total of the moneys contributed by him from week to week, together with the contributions added thereto by the corporation. An exception is, however, made in case of dismissal for fraud or dishonesty, causing actual pecuniary loss to the corporation. By this curious provision an act of parliament claims, under certain circumstances, to dispose of the whole of a man's savings; whereas the most that can suitably be done is to stop so much of them as may be a set-off against the injury sustained by the corporation. Nor is there any justification for stopping the portion contributed by the corporation, for this must be regarded either as deferred payment of wages or as a charitable donation. If it be looked on as wages the corporation obviously has no right to retain it. But if it be looked on as a charity, the corporation would appear to exceed its powers in granting it out of public moneys.

We now come to the third class of deductions—those in respect of fines.

As a rule fines are found wherever a large number of persons of a low degree of intelligence are employed together, or where expensive machinery is thrown out of gear, or many workers are delayed by the irregularity of one. The system implies the existence of a moral censorship in the employer whenever a fine for unpunctuality, breach of discipline, or damage to tools, materials, or work exceeds—as in part it has frequently done—the actual loss to the employer, *i.e.* when it becomes purely punitory. The Truck Act, 1896, has made it illegal for the employer to exact more than compensates for the damage received, by providing that deductions in respect of fines shall not be made unless "the fine imposed under the contract is in respect of some act or omission which causes, or is likely to cause, damage or loss to the employer, or interruption or hindrance to his business; and the amount of the fine is fair and reasonable, having regard to all the circumstances of the case" (see 1. c. and d.) The act also requires that contracts shall be explicit, and provides for their publication.

The case of shop-assistants with regard to fines is interesting. In this occupation the custom of fining is very prevalent, and it is no uncommon thing for an establishment to possess a list of sixty or seventy or even a hundred rules, infringement of all of which is punished by a small fine. The sum total at the end of the week is often a serious reduction of the wage. When the Truck Act, 1896, was under consideration by the standing committee on trade, the home secretary, Sir M. White Ridley, proposed and carried an amendment whereby the first section of the act applied to the case of a shop-assistant in like manner as to that of a workman. By section 1, subsection 3, therefore, shop assistants are now within the scope of truck legislation so far as regards deductions or payments in respect of fines. It appears, however, that though the administration of the Truck Acts rests with the home office, so far as concerns factories and workshops, this department has no responsibility regarding retail shops. As no other authority has been entrusted with the duty of enforcing truck legislation, the act of 1896 remains a dead letter as regards shop-assistants, although they were specially included under it.

The occupations in which fines and deductions must be looked for therefore are, first, the less developed industries, where home-work has most recently prevailed, and which are nearest to the stage of domestic industry, such for example as tailoring (especially where this is done for Jewish contractors), many small local industries, many women's occupations, particularly where the work is taken home. They are found also in many employments where trade unionism is weak. For example, fines and deductions are very prevalent and irksome among shop-assistants, omnibus and tram-car servants, waiters, and railway employés. Among waiters especially deductions are made to an extent that can only be described as monstrous. A plausible explanation of the prevalence of the system, and particularly of fines, in these occupations is that in all of them the worker is brought into direct contact with the public, and that a high degree of discipline is necessary to secure public comfort and safety. But it is important to notice that they are also all badly organised or unorganised employments, and that all have come but partially under the protection of the Truck Acts. Thus waiters are excluded because the "Truck Amendment Act 1887," which extended the benefits of the acts to any persons included under the term "workman" as defined in the "Employers' and Workmen's Act 1875," provided that the term was not to be taken to include, for the purposes of this act, domestic or menial servants. Shop assistants, as before stated, were only included by the act of 1896. With regard to omnibus employés, it was laid down in the case of *Morgan* v. *General Omnibus Company*, 1884, 13 Q.B.D. 618, that the conductor of an omnibus does not come under the definition "workman," since he does not actually lift passengers in and out of the omnibus. Similarly, with regard to railway employés, it was decided in *Hunt* v. *Great Northern Railway*, Q.B. vol. i. 1891, p. 601, that the guard of a goods train does not come under the definition "workman," because the scope of his employment is not primarily manual.

Among miners also deductions have long been common, perhaps because they often form large isolated bodies, not easily reached by the public opinion of other workers. Among the miners of South Wales, for example, the following deductions are found:—deductions for a doctor elected by the miners, for sick and accident funds, fatal accident funds, miners' permanent relief society, colliery workers' house-coal and houserent. In some collieries fines are inflicted in addition for breaches of Mines Acts and special rules, and for loss of tools supplied by the employers.

In consequence of the persistence of fines and deductions in small or undeveloped industries, and among workers who are unorganised or almost unorganised, we should expect to find them much more usual where women are employed than among men. This is, in fact, the case. Where men are employed fines and deductions are rarely found, except in industries not protected by the Truck Acts, *e.g.* waiters, and when the system exists it is oftenest in the form of deductions for benefit societies—this being the least repulsive form in which the principle can clothe itself. Among women, on the contrary, fines and deductions are common—even usual—and punitory fines, or deductions for materials, seem to be the most usual forms. They often materially lower the rate of wages. A case may be given which was quoted at the Conference of the National Union for Women Workers, 1896, in a paper by Mrs. Hicks:—"A woman working for a large city firm, making children's seaside suits at 2s. 9d. per dozen suits, has to pay 1d. in the 1s. for steam power that drives her machine, she has to pay 1d. in the 1s. for light, and she has to buy the cotton with which the suits are made. These suits may be of a special colour and the cotton has to match. A few weeks before I saw her work book, she had three suits to make and the cotton cost 6d.; she did not require that cotton except for those suits. For making these particular suits at the regular rate of pay she ought to have received 8½d., but when the light charge, and the steam charge, and the price of the cotton was calculated, she had 1½d. for making three."

Cases are quoted in the cotton weaving industry where the deductions for faults in the work have exceeded the weekly wage; and though such cases usually prove to be cases where the worker is learning the trade and may perhaps be considered to be compensated by the skill acquired, there are—under a system where fines are assessed by the foreman who may hope to obtain promotion by vigilance in his master's interests—many cases of hardship, and some of great injustice. It is often impossible to ascertain to whose fault the bad work should be attributed, and in such cases, fines are particularly irritating. For example, in the weaving trade the tuner may be in fault, yet the weaver only is fined.

Fines and deductions are far more practically important as lowering wages among women than among men; excepting perhaps in the case of waiters and some other classes unprotected by the acts.

[*Memorandum on Law re Truck*, with appendix of statutes and decided cases (c. 8048, 1896).—*Memorandum relating to the Truck Acts for the use of H.M. Inspectors of Mines and Factories* (c. 8330, 1897).—Hansard, *Debates on Truck Acts*, 1831, 1887, 1896.—*Report of Labour Commission*, 1893.—*Report from Select Committee on the Employers' Liability Act* (1880) *Amend-*

ment Bill, 1886, vol. viii.—*History of Truck System. Report of the Commissioners on Handloom Weavers*, 1839, vol. xlii.; 1840, vol. xxiii.; 1840, vol. xxiv.; 1841, vol. x.—*Convictions in York and Lancaster at Petty Sessions of persons guilty of paying wages in goods instead of Coin of the Realm*, 1842, vol. xxxii. p. 629.—*Report from the Select Committee on Railway Labourers*, 1846, vol. xiii.—*Report of H. Seymour Tremenheere on the operation of the Truck Acts in the Mining Districts*, 1852, vol. xxi.—*Report from Select Committee appointed to consider the stoppage of wages in the Hosiery Manufacture*, 1854-55, vol. xiv.—*Report of Commissioners appointed to inquire into the Truck System*, 1871, vol. xxxvi.—"Truck" by A. S. Harvey in *Good Words*, 1871.—Art. by Samuel Moore on the "Truck System" in *Archiv für Soziale Gesetzgebung*, II. ii., Tübingen, 1889. For legal aspect, L. Levi, *Hist. Brit. Commerce.*—F. A. Walker, *The Wages Question.*—Smith's *Mercantile Law.*] E. M. D.

TRUCK SYSTEM. The "truck system" is the barter system introduced between employer and employed, and signifies the practice of paying wages otherwise than in cash. It takes the following forms. First, the gift to the labourer of a portion of that which he produces, whether the commodity be suited to his needs or not; secondly, the gift to the labourer of commodities suited to his needs whether he produces them or not; and, thirdly, the loan to the labourer of the appliances necessary to production. In one or other of these forms, the system is recognised as expedient and even necessary, in certain circumstances; but, in the general case, workmen universally prefer the full payment of their wages in cash, because it tends to place them in a position of greater social and economic independence (see TRUCK and TRUCK ACTS). The attempt made by employers in many trades in the middle of the century to continue paying their workmen in kind after it had become possible to adopt a system of cash payment was bitterly resented. T. G. S.

TRUST AND TRUSTEE.

Trust and Trustee, p. 586; Trustee (judicial), p. 586.

TRUST AND TRUSTEE. A trust is a contrivance whereby one party holds property, real or personal, for the benefit of another. Such a person is called a trustee, and the person who benefits by the arrangement is called a *cestui que trust*. Trusts were unknown to the common law, and were first enforced by the court of chancery. They are created for a variety of purposes, public and private, but most commonly to make a provision for a family. The trustee has all those powers over the trust property which are essential for its preservation and management, but he is bound to use them solely in the interest of the beneficiaries under the trust. He has a right to be reimbursed his out-of-pocket expenses, but no right to any remuneration for the performance of his duties, unless the deed creating the trust authorises such remuneration to be paid. He is bound to the utmost diligence and good faith in the discharge of the trust. A trustee is personally liable to replace any loss occurring through non-observance of the provisions of the trust deed (*e.g.* by unauthorised investments), but a beneficiary at whose request or instigation such a breach of trust was committed was always liable to recoup the trustee, and under a recent statute (Trustee Act 1888, § 6, now reproduced by Trustee Act 1893, § 45) the court may in such a case order the interest of such beneficiary in the trust estate to be impounded by way of indemnity to the trustee, and a more recent enactment (Judicial Trustees Act 1896, § 3) provides that in any case of breach of trust, as to which the court is of opinion that the trustee "has acted honestly and reasonably and ought fairly to be excused for the breach of trust," the trustee may either wholly or partly be relieved of his personal liability for the same. Formerly no lapse of time barred the trustee's liability to be sued for breach of trust; but under an act of 1888 it will be barred, in most cases, by the lapse of six years. Fraudulent breach of trust is a crime punishable with penal servitude. The *cestui que trust* has no power to interfere in the administration of the trust, except in so far as it has been expressly reserved to him by the instrument creating the trust. But he has a right to all the benefits arising therefrom, and the fullest redress for misconduct on the part of his trustee. Trusts were known to the later Roman law under the name of *fideicommissa*, but their scope was much narrower in Rome than in England. By a FIDEICOMMISSUM the representative of a deceased person was bound to hand over to a party whom the deceased had indicated either the whole inheritance, or a part of it, or some specific object comprised in it.

[Snell, *Principles of Equity.*—Lewin, *Law of Trusts.*—Godefroi, *Law of Trusts.*—*Institutes of Justinian*, ed. Moyle.] F. C. M.

TRUSTEE (judicial). By virtue of a recent statute (Judicial Trustees Act, 1896) the high court, and the judge of any county court, to whom jurisdiction has been assigned in that behalf, may, on the application of the creator of a trust, or of any trustee or beneficiary, appoint a "judicial trustee" to act, either jointly with another trustee or alone—in respect of any trust (not being a charitable trust). Any fit or proper person nominated by the applicant may be appointed, and, in the absence of any satisfactory nomination, an official of the court to whom the application is made may be appointed. The court may, within the limits prescribed by the rules issued under

the above-mentioned act, order such remuneration to be paid to a judicial trustee out of the income of the trust property, as shall cover all his work and personal outlay. A judicial trustee, whether an official or not, is subject to the supervision and control of the court by which he was appointed, and his accounts must be audited every year, and reported on to the court. It remains to be seen whether these new provisions, which were adopted on the recommendation of a committee, which had made inquiries on the practice as to "judicial factors" in Scotland, will be much applied in England. E. S.

TRUSTS (in connection with trade combinations). Among the several forms of association which have been chosen by persons wishing to bring the whole of a trade under the control of a particular group of persons or companies, the so-called "trusts"—as established in the United States (see MONOPOLIES)—are the most prominent. Of these the Standard Oil Trust, formed in 1882 for the purpose of securing the monopoly of the American petroleum trade, is the prototype, and similar associations exist for other trades. In England and on the continent of Europe the same objects are frequently attained in other ways, *e.g.* by contractual arrangements between the traders concerned or by the formation of large companies who absorb all the smaller concerns, but the rings of monopolists are not so powerful in Europe as in the United States. In England it was attempted to obtain a declaration from the courts declaring combinations of the nature described to be illegal, but this attempt did not prove successful (Mogul Steamship Company *v.* M'Gregor, Gow, and Co.). In the United States, on the other hand, the courts have taken a less tolerant view of trusts of this nature, without, however, being able to prevent their continuance. It does not appear that the price of any article was ever permanently raised by trade combinations; and the advantages of a uniform organisation of all operations probably outweigh the evils created by the absence of competition, if the management of the combination is honest and serves no aims outside the proper objects of the combination; but this does not always seem to have been the case.

[See MONOPOLIES IN THE UNITED STATES, and the authorities there cited; also Aschrott, "Die amerikanischen Trusts" in *Archiv für sociale Gesetzgebung*, vol. ii. pt. 3, and further the article "Unternehmerverbände (wirtschaftliche)" in Conrad's *Handwörterbuch der Staatswissenschaften*.]

E. S.

TRUSTS, COMBINATIONS. See MONOPOLIES; RING; SYNDICATE; TRUSTS.

TRUSTS, CHARITABLE (Present law as to). Trusts created for one of the numerous purposes summed up under the head of "charitable," including religious and educational as well as purely eleemosynary objects, are of very frequent occurrence in England, and property of enormous value is devoted to such trusts. It is clear that the public interest requires safeguards to be applied against possible abuses in the administration of the trust property, and also against the possible withdrawal of large areas of land from effective cultivation. Charities have therefore always been—and are now—to a large extent subject to regulations and restrictions imposed on them in the public interest. These may be divided into three heads: (1) the establishment of public authorities specially entrusted with the supervision of charitable institutions; (2) the rules of law under which charities are created and modified; (3) the restrictions in respect of the settlement of property for charitable objects.

(1) Charities are under the supervision of the crown, the courts of law, and the charity commissioners; and parochial charities (not being ecclesiastical charities) are also to a limited extent under the control of the parish councils (see Local Government Act 1894, § 14); but the functions of the charity commissioners are so extensive that they now do by far the most important part of the work which comes under this head. Their powers are derived under a number of acts of parliament, among which the Charitable Trust Acts of 1853, 1855, 1860, 1862, and 1869 are the most important. They are a government department consisting of four commissioners and a number of assistant commissioners and a secretary and assistant secretary, in addition to the commissioners and assistant commissioners who have charge of the endowed schools department. They have extensive powers of inquiry as to the condition and management of all charitable institutions; they are also enabled to authorise and superintend a number of transactions connected with the administration of charitable trusts, for which the trustees alone would not be competent, such as sales, exchanges, leases, repairs, improvements, purchase of sites, etc.; and their powers further extend to the removal and appointment of trustees, and other similar matters. The possibility of applying in respect of all the subjects mentioned to the charity commissioners has removed the necessity of taking proceedings in the courts in many cases, in which previously such proceedings were indispensable—which circumstance not only saves expense but also enables the parties to attain their object in a less formal and more expeditious manner.

(2) The law favours charitable trusts by exempting them from the restrictions of the rule against perpetuities, and it further gives considerable assistance by the application of the equitable doctrine of *cy-près* (being a rule according to which the donor's intentions, if they cannot be carried out literally, are given effect to in an "approximate" manner). Where a testator manifests a general intention to devote a fund to charity, although no definite purposes are named, or although the objects named are incapable of being effected, that intention is carried into effect, but the particular mode of application is determined by a "scheme" which has to be settled for the purpose, either by the courts or by the charity commissioners. The doctrine of *cy-près*, whilst thus preserving funds for charitable purposes, which would otherwise have to go to the testator's relations or residuary legatees, supplies the further advantage that it enables the administrators of any charity to disregard the literal directions of the founders, if the changes brought about by time make it desirable to introduce some alteration. In such a case as on the creation of a new charitable trust, a "scheme" may be prepared and settled by the court or by the charity commissioners.

(3) The restrictions imposed upon gifts for charities are divisible into two classes, of which the first is intended to prohibit legacies in favour of any objects which the law, for the time being, considers superstitious; whilst the second deals with gifts of land only, and is intended to resist the mischief which is thought to arise if land becomes the property of a "dead hand."

Gifts to superstitious uses formerly included all gifts for the benefit of religious communities other than the Church of England, but the disabilities of Roman Catholics, Jews, and dissenters were removed by successive statutes; and gifts for the benefit of these communities are now given effect to in the same way as other gifts, subject, however, to the exception that bequests to priests for offering masses for the soul of the dead are void in England. In Ireland such gifts are valid unless they transgress the rule against perpetuities.

The restrictions in respect to gifts of land for charitable purposes are now mainly regulated by the Mortmain and Charitable Uses Acts 1888 and 1891. The present state of the law may be shortly stated as follows:

(*a*) Gifts of land to *corporations* are void unless authorised by royal licence, and cause a forfeiture of the land to the crown. This rule is, however, subject to the following exceptions:

A. Gifts of land to a corporation for the purposes of a public park, a schoolhouse, for an elementary school or a public museum, are valid if they are made by a duly enrolled deed executed at least twelve months before the donor's death (M. and C.U.A. 1888, § 6).

B. Gifts of land to a company formed for the purpose of charity, and incorporated under the companies' acts, are valid if not exceeding two acres of land, and are valid to any extent if authorised by licence of the board of trade (Companies Act, 1862, § 21).

C. Gifts of land to a corporation for the purpose of providing dwellings for the working classes in any populous place are valid if made by duly enrolled deed (Working Classes Dwellings Act 1890, §§ 1-2).

(*b*) Gifts of land *by will* for the benefit of any charitable use are no longer subject to any restrictions; but any land given by will must, notwithstanding anything contained in the will, as a general rule be sold within twelve months from the testator's death; and personal estate directed to be laid out in the purchase of land for the benefit of any charitable use must *not* as a general rule be used for the purchase of land. Power is, however, given to the court and also to the charity commissioners:

A. In the case of land given by will, to extend the time for sale; or if satisfied that the land is wanted for actual occupation for the purposes of the charity, and not as an investment, to sanction the retention.

B. In the case of personal estate directed to be laid out in the purchase of land, if satisfied that the land proposed to be purchased is wanted for occupation, etc., to sanction the acquisition (Mortmain and Charitable Uses Act 1891, §§ 5-8).

[Bristow and Cook, *The Law of Charities and Mortmain*, 1889. See also the article "Charities" in the *Encyclopædia of the Laws of England*.] E. S.

TUCKER, GEORGE (1775-1861). Born in Bermuda; died in Virginia. In early life he was a lawyer and in public life. He retired from congress in 1825; was professor of moral philosophy and political economy in the university of Virginia for twenty years.

He wrote *Laws of Wages, Profits, and Rent Investigated*, Philadelphia, 1837, pp. v., 189, in which he criticises the Ricardian theory of distribution of wealth; *Theory of Money and Banks Investigated*, Boston, 1839; *Progress of the United States in Population and Wealth in Fifty Years*, New York, 1843. The edition of 1855 contains *Appendix*, p. 68, on the census of 1850. This is a valuable study in social statistics, dealing with sex proportions, race elements, age, maladies, progress of slavery, and annual increase of the population; *Correspondence with Alexander H. Everett on Political Economy*, 1845; and *Banks or No Banks*, New York, 1857. In this the unrestricted banking of the early period of the first third of the century is severely criticised. D. R. D.

TUCKER, JOSIAH (1712-99), son of a small Welsh farmer-squire, curate and rector at Bristol under Bishop Butler, and dean of Gloucester (1758-99); laid in his *Elements of Commerce* (1755) those four foundation-stones of political economy, the discovery of which is attributed by Zeyss (1889) and Hasbach (1891) to A. SMITH (1776).

(1) He regards political economy as a science, for commerce means with him, as with D. HUME (1752), any means whereby wealth is got; and his "elements," which deal with men's animal and social "wants," and are non-national and "universal," yield, but for "human impediments," an order like that of the stars in their courses (p. 8). HEGEL, too, called political economy a theory of wants, and compared its laws to those of astronomy (J. Bonar, *Phil. and Pol. Ec.*, p. 310). (2) In supplying wants, "self-love," SAY'S word, or "self-interest," A. Smith's word, is "the great mover"; "the strongest principle," far mightier than "benevolence," and destined to drive out "tyrant custom" from its last stronghold in the open field, and to turn proud "Gothic barons" and cringing "vassals," Hume's phrases, 1752, into "commercial" farmers bent on gain. He looks on commercial man as swayed solely by self-interest. (3) Self-interest, if untrammelled, almost always "coincides" with public interest in populous countries, for it is competition which produces this result; and in thinly-peopled countries competition is inconceivable. With competition, the producer will sell as cheap as he can, without competition as dear as he can; and in the former case "the public" or "consumer" will gain, and "the maker" will not lose. Further, industrious foreigners should be naturalised in order that wages may be beat down and labourers' "combinations" broken; and "though individuals may suffer," prices will be cheaper or wares better and the "public is a gainer" (M'CULLOCH, *Collection of Scarce Tracts on Commerce*, 1859, p. 343). He is therefore an advocate of competitive distribution as well as competitive production. His point of view is so absolutely that of the consumer that he calls monopolies and bounties "taxes on the community," and says "abolish every tax and remove all impediments whatever which might prevent self-love—the grand mover—from operating for the public good" (*E. of C.*, p. 169). "One-half at least of . . . the statutes . . . might be made a bonfire of" (p. 158), including privileged companies, parish settlements, apprenticeships, laws as to labourers' hire, hours, wages, and combinations, and as to price and quality of goods. "Remove disorders which a bad habit or a wrong treatment hath brought upon the constitution, and then leave the rest to nature, who can best do her own work"; when healed, "it would be as wrong to multiply laws relating to commerce as it would be to be for ever prescribing physic" (p. 79). He called industrial freedom a "natural right" (pp. 124, 155), echoing—not LOCKE, whom and whose disciples he abhorred (*Treatise concerning Civil Government* (1781); *Sequel to Sir W. Jones* (1784)); but Sir E. Sandys (*Journals of H. of C.*, (1602), vol. i. p. 218). At this date the PHYSIOCRATS had written nothing, and Hume still called the economic sense "avarice" (*Works*, ed. Green and Grose, vol. iii. p. 295); possibly A. Smith

was, in 1755, moving in the same direction (J. Rae, *Life of A. Smith*, p. 203); but if not, Tucker's voice was the voice of one crying in the wilderness. (4) There were a few cases in which self-interest, even when exposed to competition, does not promote public interests: (*a*) profit may be too remote, as in reclaiming bogs, growing timber, and infant industries, where *temporary* bounties and remissions of taxes were allowable (*E. of C.*, pp. 73, 74); (*b*) cheapness may involve vice, as in alehouses, which should be limited; (*c*) learned professions live on the labour of others, and therefore their members should be few (p. 92); (*d*) bad doctoring is too dangerous, therefore doctors must be selected beforehand by examination (p. 91); (*e*) in production on a large scale self-interest, by ranging masters and men into hostile camps, leads to mutual suicide, and therefore production on a small scale will alone survive.

He made politics tributary to economics, and wished the colonies to separate from England because trade laws were the only link, and that link was rotten. Burke upheld the trade laws and reviled "the profane herd of those vulgar and mechanical politicians . . . who think that nothing exists but what is gross and material" (*Speeches on Am. Tax. etc.*, ed. Selby, pp. 99, 131). Tucker replied with an audacity worthy of COBDEN, that he was proud to belong to the latter class. So too his denunciation of trade wars, and the jealousy of trade (Hume's phrase, 1758), is enlivened by a sentence worthy of Cobden. "A shopkeeper will never get the more custom by beating his customers, and what is true of a shopkeeper is true of a shopkeeping nation" (*Four Tracts and two Sermons* (1774), p. 132; cp. A. Young, *Tour in Ireland*, ed. 1892, vol. ii. p. 219). Like A. YOUNG and Mr. Goldwin Smith, he combined colonial separatism with Irish unionism, and prophesied in 1785 that the latter event would come to pass in ten or fifteen years (*Reflections*, p. 33). He knew that slave-labour was costly (*Instructions for Travellers*, p. 20), and deemed political the handmaid of industrial freedom, but scorned votes, and thought that the levelling disciples of Locke in France were harbingers of revolution (*Cui Bono*, 1781).

Why, then, is Tucker almost unknown? First, he held the views about population which prevailed from FORTREY and Sir W. TEMPLE down to R. PRICE and WALES; and asked, "What is a market but a collection of inhabitants"? wished to refasten some of the old trade fetters on bachelors, and though a champion of strict indoor relief, wished to grant out-relief to large families. His preference for small estates, like BACON and HARRINGTON, small farms and allotments, like PRICE, and his appreciation of the division of labour, are like gleams of sunshine across this gloom. Secondly, his idea that "industry and labour are the only real riches," that "commerce" is "the exchange of labour" (*Sermon*, i. p. 13), and that money is "a certificate of labour" (*E. of C.*, p. 99), is a crude version of PETTY'S ideas which Hume and A. Smith refined, but which reappear yet more crudely in R. OWEN, Karl MARX, and the LABOUR EXCHANGE of this century. True, it enabled him to defend machines, and to see clearly what no mercantilist saw quite clearly, that domestic and foreign trade are on the same footing with regard to wealth, and that all trade benefits both buyer and seller (ROSCHER, *Zur Geschichte der englischen Volkswirthschaftslehre*, p. 39), but it proved that his mind was a blank on problems of cost and value. Thirdly, his panacea of taxing luxuries shows that he had not thought out taxation from his new point of view. He was only a "ways and means" man. Fourthly, his *Brief Essay on the Advantages and Disadvantages which respectively attend France and England with regard to Trade* (1748), reprinted by M'Culloch (*loc. cit.*), misrepresents the writer's mature opinions (*Cui Bono*, 3rd ed. p. xiii.); it is but a stepping-stone from Richardson's (?) mercantilist *Essay* (1744), also reprinted by M'Culloch (*loc. cit.*) to Tucker's great work, *Elements of Commerce and Theory of Taxes* (1755); continued in *Instructions for Travellers* (1757), and second *Tract* (v. i.). And this work is the merest fragment, thrown aside for want of money. Indeed, the *Elements* have only been privately printed, and the *Instructions* restate the best portion of his *Brief Essay*. His other economic works are with a few exceptions pamphlets on questions of the hour; *e.g.* on naturalisation (*Reflections*, pt. i. (1751); pt. ii. (1752); *Two Letters* (1753)); on limiting public-houses (*Inquiry into . . . Low-priced spirituous Liquors* (1751)); on opening the Turkey trade (*Reflections* (1753)); on trade wars and colonial separation (*Tract*, ii. (1763); iii. (1766); iv. (1774), and v. (1775); *Letter to E. Burke* (1775); *Humble Address* (1776); *Series of Answers* (1776); *Dispassionate Thoughts* (1780); *Cui Bono . . . Letters to Necker* (1781); *Plan for a General Pacification* (1782); on Ireland (*Tract* v. (*v.s.*); *Reflections* (1785); and extracts in *Arguments for and against an Union* (1798), and T. B. Clarke, *Union or Separation* (1799)). TURGOT translated two of these pamphlets, *Reflections*, pt. ii., and *Tract* ii.; but they are too polemical to live. The exceptions fall into two classes. (*a*) Those of passing interest are—*Reflections on the . . . Low Price of Coarse Wools* (1782) (allotments); *Manifold Causes of the Increase . . . of the Poor* (1760); *Bath Soc. for . . . Agriculture*, vol. vi. p. 252 (proposes unions, benefit clubs, etc.); to which M'Culloch adds the anonymous *Causes of the Dearness of Provisions* (1766) (?) (*b*) His *Tract* i. (1758), which arose out of a correspondence with Hume, and *Two Sermons* (1774) go to first principles. Hume wrote (1752) that a rich nation must lose its riches, because a poor nation can work more cheaply owing to low wages (*Essay* iii. in *Works*, vol. iii. p. 310). Tucker answered that if the nation was idle, its riches would "melt like snow in summer"; if the nation had been and was industrious, its fixed and circulating capital—he enumerates the different species, but does not use these words (*Tract* ii. p. 22)—its skill, division of labour, and the fact that profits must be higher in the poor country, gave the rich country an incalculable advantage, except in unskilled industries like timber-growing. Hume's reference to "the advantage of superior stocks and correspondence" in his sixth *Essay* (1758), (*loc. cit.* p. 348), was perhaps inspired by Tucker.

The argument about high profits was put better in the *Brief Essay* (ed. M'Culloch, p. 339), but is similar to that on which J. S. MILL relies (*Pol. Ec.*, bk. iii. ch. XXV.). He also adds that in advocating naturalisation he did not wish to attract moneyed idlers, who only impoverish a nation; and this was the true answer to MANDEVILLE'S paradox, which D. HUME (*q.v.*) had failed to answer (cp. T. B. Clarke, *Survey of the Strength and Opulence of Great Britain*, 1801, p. 38).

Tucker was one of those who grow with astonishing rapidity up to a certain point, which they never pass. As Bristol and the influences of Butler and Hume undoubtedly stimulated, so perhaps Gloucester stunted his spirit.

[For philosophic doctrine of self-interest, in Butler, see Hume's *Works*, ed. Green and Grose, introduction to vol. ii.; in recent writers, see M. Block, *Les Progrès de la Science Économique depuis A. Smith* (1897), ch. vii.—For Tucker's political ideas, see Leslie Stephen, *Hist. of English Thought in the Eighteenth Century*.] J. D. R.

TUNNAGE AND POUNDAGE. See TONNAGE AND POUNDAGE.

TURBOLI, GIAN DONATO (17th century), a Neapolitan writer and merchant and director of the mint at Naples. He discussed money and exchange in several speeches published in different years between 1616 and 1629. All these, except the first, were eventually published in Custodi's collection. Turboli, like many other writers of the day, investigates the causes of the want of specie in the kingdom of Naples, and gives interesting notes on the difficulties of coining in that kingdom.

He especially studies exchange, to which many proposed to fix a legal maximum limit, believing this to be a means of preventing money from leaving the country. Turboli, however, combats these measures, observing that if the rate of exchange was high in Naples, insuperable reasons caused it to be so; and if the rate of exchange was high against the kingdom, and this had deprived it of all coins, this evil was irremediable, as he who owes largely cannot have much ready money, because he is obliged to pay. Turboli's chief merit is his persistent opposition to the suggestions of a legal regulation of the rate of exchange; but his treatment of the subject is far inferior to that of SERRA (*q.v.*).

Discorso sopra le monete del regno di Napoli, ec., con diverse relationi e copie d' altri discorsi, ec., 1629 [see Fornari, *Delle teorie economiche nelle provincie napoletane*, 1882.—Gobbi, *L' economia politica, ec.*, 1889]. U. R.

TURGOT, ANNE ROBERT JACQUES TURGOT, BARON DE L'AULNE (1727-1781), one of the noblest and purest figures in history, occupies an important place on the roll of great economists. Endowed with a fine intelligence, nourished and fortified by unwearying assiduity, he became early in life a distinguished scholar, and was elected prior of the Sorbonne in 1749. In that capacity he delivered in 1750 an address on *The benefits which Christianity has procured for Humanity*, and the same year an account of *The Progress of the Human Mind*, in the course of which he predicted as inevitable the separation of the American colonies from the mother-country:—"Les colonies sont comme des fruits qui ne tiennent à l'arbre que jusqu'à leur maturité: devenues suffisantes à elles-mêmes, elles firent ce que fit depuis Carthage, ce que fera un jour l'Amérique" (*Œuvres*, ii. 66). He translated from the Greek, Latin, Hebrew, German, and Italian, and notably, from the English, some of the economic writings of D. HUME and J. TUCKER. He composed French and Latin verse with elegance and facility. His epigram on FRANKLIN has rested famous: *Eripuit coelo fulmen sceptrumque tyrannis*. The letter on paper money which he addressed to the Abbé de Cicé in 1749, criticising the system of Law, is his first excursion into economic reasoning. In 1750 he wrote an essay against the metaphysics of BERKELEY, subsequently worked up for the *Encyclopédie*, and published under the title "Existence." A criticism of Maupertuis's theory of languages similarly formed the basis of an article "Étymologie" in the same collection. In 1751 he quitted the Sorbonne. Conscientious scruples decided him to abandon the ecclesiastical career upon which his family and friends desired to see him enter; and in 1752 he embraced the profession of the magistracy, commencing as *conseiller-substitut* of the *procureur-général*. The same year he became *conseiller au parlement*, and in 1753 *maître des requêtes*. In 1756 he followed up his articles in the *Encyclopédie* with three others, "Expansibilité," "Foires," and "Fondations," the last two of economic interest. He opposes exclusive privileges of fairs and markets, and pleads for liberty for commerce to find its own channels, supporting his views by reference to GOURNAY, "to whom France will perhaps some day owe the destruction of obstacles which have been imposed upon the progress of trade in the vain hope of encouraging it." To the argument that fairs facilitate the collection of taxes upon articles sold for export, he replies that it would be wiser to exempt such goods from taxes altogether, and points out that a reduction of duties by stimulating trade and consumption, and reducing the cost of collection, may result in a larger net revenue. His criticisms of "foundations," are, though much fuller and deeper, in many respects similar to those to which twenty years later Adam SMITH gave utterance. The vanity of founders, their want of foresight, the social dangers of ill-advised charity, the degeneration of worthy objects, are vividly brought out. Self-help, and freedom to exercise one's own faculties, are conditions of a healthy society. But none the less, voluntary effort, individual or combined, in relief of suffering, is a duty incumbent upon all citizens. The poor have incontestable claims upon the abundance of the rich. Religion and

humanity call upon us to succour our fellows in distress. But in all things public utility is the supreme law, and ought not to be held in check by superstitious respect for the "intentions of founders." "If there were a tomb for every man who has lived, it would be necessary, in order to find land for cultivation, to sweep away these barren monuments and stir the ashes of the dead to provide subsistence for the living" (*Œuvres*, iii. 255). The order for the suppression of the *Encyclopédie* and its partisan reputation for agnosticism induced Turgot to abandon his intention of contributing further articles to the great dictionary, which was continued clandestinely. His translations of English writings upon trade deepened his intimacy with Trudaine and Gournay. In 1755 and 1756 he accompanied Gournay, then *intendant* of commerce, upon his official travels throughout the country, and was made to see the ramified mischief wrought by excessive and ill-judged state regulation, often inspired by interested motives, and "putting the poor still more at the mercy of the rich." In 1759 Gournay was cut off by death, and Turgot wrote his *Éloge de M. de Gournay*, a memoir struck out in a few days to assist Marmontel to deliver an official oration at the academy. This tract furnishes almost the only account we at present possess of that eminent precursor of the French school. It sets forth with conviction the eagerness of Gournay for a LAISSEZ-FAIRE policy, and warmly praises his large views and clear principles of freedom of enterprise.

In 1761 Turgot was nominated *intendant* for the generality of Limoges. Confronted by obstacles almost insurmountable, he applied himself with equal vigour and intelligence to the solution of the most difficult problems of administration. The district was poor. Its finances were in a state of chaos. The intendant's duty was to raise from his generality a certain sum, fixed annually, for the royal treasury, and to apportion the amount between the several localities. Part of the district had been surveyed in 1738; but such of these records as had been preserved were faulty or out of date. Estimates of wealth were framed upon different principles—gross revenue being sometimes reckoned as net income—and as regards the unsurveyed portion of the generality, the declarations of owners approximated to the truth with widely varying degrees of accuracy. No record was kept of changes of ownership, or other essential circumstances. To remove the glaring anomalies which resulted, and to eliminate as far as possible the arbitrary element from future apportionments, Turgot undertook the immense task of a complete survey. Another of his first steps (1762-1764) was to abolish the CORVÉE, and to replace it by the milder and more convenient burden of a highway rate based upon the TAILLE. So great was the mistrust entertained towards the government, that it would have been difficult to raise such a rate directly, for the peasants could feel no confidence that the money would not be diverted to some other purpose, and the roads left unmended. He ingeniously proposed that the parishes should have the work executed by contractors, and the cost deducted from the quota of contribution due from the parishes to the treasury. This bold reform, which Turgot executed by an *ordonnance* transgressing the strict limits of legality, was an unqualified success, and paved the way for the confidence and popularity which he subsequently enjoyed throughout his district.

In 1770-71 he found his generality menaced by famine. Rigorously enforcing the unfettered movement of corn within the district, he trusted with confidence to an influx of corn and to its commercial distribution where it was most required, as evidenced by the height of prices. At the same time he borrowed 20,000 francs, and, adding to these from his own resources, and from government subventions, he undertook public works to provide the poor with employment, and the means wherewith to purchase food. At this period he addressed to Terray, then controller-general, seven letters on the corn trade, of which three are lost. In these letters he examined the ill effects of legal restrictions upon the free circulation of corn throughout the country, and strenuously pleaded for free trade. The success which attended his abolition of the *Corvée* for repairs of the roads encouraged him next to abolish the *corvée* for the forced transport of troops and war material. The peasants, employing large numbers of slow oxen and small chariots in this service at times when their harvests urgently required them at home, were greatly benefited by a change which allowed them to pay in money a contractor who conducted the transport by horses at a quarter of the old charges. A similar reform was executed with regard to billeting. He successfully resisted the attempt to impose upon his district a new *corvée*—the hauling of boats laden with admiralty timber along the Charente. His enquiries into the wealth of his generality enabled him also to claim with success a diminution in its quota of national taxation. His unwearied efforts to promote the welfare of the people rendered him truly popular. He established veterinary schools; encouraged the society of agriculture of which he was president; introduced the potato, clover, and artificial grasses; stimulated new industries or new processes in the manufacture of paper and in tanning; and by his active and enlightened administration greatly contributed to the prosperity of his district. Particular occasions upon which it became necessary for the government to consult him drew from his able pen reports in which the

great lines of important economic principles were boldly laid down. Such are his memoir on mines and quarries (the economic and legal aspects of free mining) and his study of the laws of interest (a defence of free trade in capital). He suggested to the society of agriculture that it should offer a prize for an essay upon the advantages of employing horses as compared with oxen, and upon the effects of indirect taxes on the revenue of landowners. The latter of these offers drew forth the works of SAINT PÉRAVY and GRASLIN.

Two young Chinamen, who had been brought to France and educated by Jesuits, were sent back to Canton with a royal annuity, to maintain a correspondence upon the state of literature and science in China. Turgot wrote for them in 1766 a little treatise on political economy, which was published in the EPHÉMÉRIDES (Nov. 1769 to Jan. 1770) under the title of *Réflexions sur la Formation et la Distribution des Richesses* —his most considerable work in economic speculation. In 1774, to the great regret of his district, which he had thrice refused to leave for promotion to other generalities, he was called to the court of the new king (Louis XVI.), and made secretary of state for the navy, a post which he held for only five weeks before being appointed controller-general and minister of finance (24th August). DUPONT DE NEMOURS, giving a striking account of Turgot's maritime programme and of his enlightened views upon colonial policy, thinks it perhaps regrettable for France that Turgot had not remained in the less political office of the admiralty, to carry out the extensive proposals which his fertile brain had already framed. Entering upon his new duties, he stated the principles by which he intended to be guided in the most difficult of offices, and summarised them in a striking letter to the king in which he lays down three cardinal propositions, *point de banqueroute, point d'augmentation d'impôts, point d'emprunts;* expenses are to be kept below receipts and debts reduced, or the first cannon shot will force the state to financial ruin. The king is urged to favour economy, and to be firm against the clamour of those who resist it, for the good of his people must be his primary consideration; and those who wish to dip their hands into the treasury must remember that the revenues of the state are provided with difficulty by the humblest subjects, and that the king has no right to deprive these of subsistence to gratify even his dearest dependents. This bold appeal is as remarkable for its foresight as for its courage. Turgot clearly saw that those who profited by laxity and abuse would make a desperate fight against reform, and he endeavoured to strengthen the king's good intentions by timely warning and advice. The royal expenses for 1775 were estimated to exceed the revenue by over 22,000,000 livres, and upwards of 78,000,000 livres had been expended in anticipation. Pensions were three or four years in arrear, and each department was heavily in debt. Nevertheless Turgot did not hesitate to abolish or diminish various onerous charges upon the public, and to devote a sum of 15,000,000 towards the immediate payment of arrears due from the state. He purified the financial administration, checked the growth of parasitic *croupiers* who drew a kind of royal pension from the FARMERS-GENERAL, himself refused from them the customary commission of 100,000 crowns on a new lease and 50,000 a year, and thus secured for the state better terms than his predecessors —at once increasing the revenue and diminishing the expenditure. On the 25th September 1774 he issued a decree permitting free trade in corn within the country, but not its export. The bad harvest of the following autumn assisted Turgot's enemies in their efforts to foment corn riots throughout the country, as a protest against the new policy; but the disturbances were firmly quelled, and the government showed its spirit and reassured commerce by promptly paying 50,000 francs to a merchant for a cargo of corn which had been thrown overboard by the mob. Du Pont asserts that the really serious result of this disorder was not merely the loss of money (610,000 francs) spent in repressing it, but especially the waste of valuable time which prevented Turgot from putting into execution his matured plans for an extensive reform of local government, decentralising a large measure of power and responsibility into the hands of local elected authorities. The riots delayed the prosecution of this scheme for six weeks, and made it impossible to carry through the necessary preliminary stages by October, when the finances of the year were regulated. This compelled the plan to be delayed a whole year, and Turgot was not destined to have another opportunity for carrying it out. The abundant details which we possess of his administration illustrate the clearness, courage, consistency, and integrity of his views. Unfettered liberty, unspotted honesty, were to him the ideal requirements for promoting the financial and social welfare of the nation, and he revised with much shrewdness, to the great profit of the treasury, the financial bargains concluded with farmers-general and others by his less scrupulous or less enlightened predecessors. The credit of the state revived. The rate of interest on loans to government fell in twelve months from 5½ to 4 per cent, and a large measure of conversion by aid of a loan from Holland, was in preparation by Turgot when he fell, and a great programme of many and far-reaching measures, calculated to promote the greatest benefits to the country, came to an untimely end.

The reforming zeal of Turgot had stirred up

an active band of enemies at court. Courtiers, who were aided to live in the giddy and costly society of Versailles by more or less thinly veiled grants from the treasury, in the shape of perquisites, sinecures, and royal gifts, saw with rancour and alarm the financial severity of the new controller-general. In almost the same words as Sully had employed to Henri IV., he pointed out to the king that his money was collected from his poorest subjects; and like Sully he successfully invoked the king's fairness and clemency towards the great mass of the labouring people as a check upon uncalled-for and unearned generosity at their expense. The financial interests, unable to advance their own profits by the corruption of the minister, and compelled even to disgorge some of their unjust gains, shared to some extent the same feeling. Most of Turgot's colleagues in the ministry had an uneasy conviction that he was going too fast and too far. Finally the queen herself held him in high disfavour by reason of the limitations which he imposed upon her extravagance. These elements of discontent came to a head when the famous Six Edicts were presented to the king by Turgot in the beginning of 1776. These proposed, 1st, to abolish the *corvées* throughout the kingdom; 2nd, 3rd, 5th, and 6th, to suppress various taxes and tolls upon corn, cattle, etc., in Paris; and 4th to suppress the JURANDES or gilds. Differences arose among ministers with regard to these measures, but the king decided in favour of their acceptance; and, after being passed by the council, they required to be registered by the parliament. That reactionary body objected to register them with the exception of one of the least importance. The king was obliged to call a *lit de justice* to compel their submission. The infuriated parliament commenced to clamour against Turgot, and ordered the burning of a treatise *Sur les inconvénients des droits féodaux*, written by his friend and subordinate BONCERF. Intrigues were set on foot in every quarter. The king, who had shortly before declared his opinion that only he and Turgot really loved the people, was worked upon and wearied by Turgot's enemies. A memoir, said to have been prepared by NECKER, was privately submitted to him pointing out some arithmetical inaccuracies in Turgot's draft budget, and suggesting that he was incapable to deal with the accounts of the nation. Du Pont alleges that damaging letters, with the forged signature of Turgot, were brought to the king from the *cabinet noir*. A coldness sprung up on the king's side. An open breach occurred over the proposed appointment of a successor to Malesherbes, Turgot's chief friend in the ministry, who had resigned his office. The queen's party proposed Amelot, an antagonist to all Turgot's ideas. Turgot remonstrated. The king vacillated. Turgot wrote him four letters, in the tones of vigorous and almost patronising exhortation which he had employed when accepting office. One of these letters remains to enable us to judge of the rest. "Do not forget, sire," he says in one place, "that it was weakness that brought the head of Charles I. to the block." . . . "You, sire, have been sometimes believed to be weak, but I have seen you in trying circumstances show real courage. You have said it yourself, sire, that you want experience, that you have need of a guide." To none of these letters did the king send a reply. It cannot have surprised Turgot to receive his dismissal, 12th May 1776.

Du Pont has summarised Turgot's ministry. He abolished twenty-three taxes onerous to industry and commerce. At a cost of 10,000,000 livres a year he got rid of the scourge of the *corvée* on the roads, which cost the country four times as much, and abolished other forms of forced labour. He arrested a devastating plague, stifled a sedition, lightened the collection of taxes, freed trade and labour from many shackles, paid four years' arrears of pensions, defrayed the extraordinary charges arising out of the coronation, a royal marriage, and a royal birth, paid off 74,000,000 of debt and 58,000,000 of advances, leaving only 10,000,000 of anticipated income to be repaid by his successor, and left behind him a surplus of 3,500,000 as compared with a deficit of 19,000,000 when he assumed office. All this and much more in a ministry of twenty months, during seven of which he was incapacitated by gout. He betook himself to a calm retreat, and to the study of literature and science, and died less than five years after his dismissal (18th March 1781). Men so different as VOLTAIRE and Adam Smith, who met him in Paris in 1766, esteemed him highly. There have been greater economists and more tactful statesmen; but no minister has ever surpassed him in combined courage, probity, patriotism, and intellectual attainments.

Some more extended account is required of Turgot's chief economic work, the *Réflexions sur la formation et la distribution des richesses*. It is divided into 100 sections, occupying 130 pages of Du Pont's edition. He traces the existence of commerce to (i) the unequal distribution of land; (ii) the diversity of the soil in fitness for production; (iii) the multiplicity of human needs; (iv) the advantages of the division of labour, which he illustrates by examples. The agricultural labourer is pre-eminent over the artisans, not in honour or dignity, but in physical necessity, for he might do without them, but they cannot do without him. In fact, what his labour produces from the soil is the only WAGES FUND (*l'unique fonds des salaires*), and the commodities which he buys are the exact equivalent of the produce which he gives in exchange. Competition forces artisans' wages down to subsistence level (the doctrine of neces-

sary wages). But the agricultural labourer produces more than this, for nature does not higgle with him for a subsistence wage, and he is thus the only producer of wealth. The extractive classes, then, are productive; the artisan classes salaried (*l'une productive, l'autre stipendée*). As society progresses and lands are all taken up, the owner becomes distinct from the labourer, the new-comers may as well earn wages on the land as in manufactures. The product is now divided into two parts—the wages of labourers and the surplus which goes to the landlord as his revenue; the landlord becomes available for social needs like war and justice, either by personal service or by deputies whom he pays. He may therefore be assigned to a third class (*classe disponible*), an available reserve. The evolution of labour on the land is traced from (i) labourers to (ii) slaves, (iii) serfs, (iv) metayers, (v) farmers. He proceeds to examine the mechanism of exchange, and describes the stage of barter and the origin and nature of money in terms reminiscent of CANTILLON, and suggestive of comparison with Adam Smith. The accumulation and social utility of capital is next sketched, and its functions in aid of production are described. It is argued that interest for the use of capital is as legitimate, and should be as free as the sum paid for the use of land or any other object of commerce, and depends, in either case, upon supply and demand. The annual net produce of the land of a country capitalised, plus the movable wealth in the country, gives the sum of the national wealth, excluding loans, for they would otherwise count twice over. The capitalist, who lends at interest, does not form part of the *classe disponible*, and his income is not available for the state, for it is not a *produit net*, but the result of a buying and selling like the profit of other merchants. It should no more be taxed than the manure which fertilises the land. "C'est toujours la terre qui est la première et l'unique source de toute richesse . . . Il n'y a de revenu que le produit net des terres." It will be seen that these conclusions are in harmony with those of the PHYSIOCRATS; but, though a friend of QUESNAY, Turgot's repugnance to all "sects" kept him aloof from the inner circle of that school.

[A complete bibliography of Turgot would be very extensive. It will suffice to mention Du Pont's edition of his works, referred to above as *Œuvres*, 9 vols., 8vo, Paris, 1809-1811, prefaced by a life of Turgot which first appeared in 1782, 2 vols. 8vo, Philadelphia.—*Œuvres de Turgot*, rearranged, with additions by DAIRE and DUSSARD, 2 vols. 8vo, Paris, 1844.—*Vie de M. Turgot*, 8vo, Londres, 1786 (by Condorcet).—Dupuy, *Éloge de Turgot* (*Mémoires de l'Académie des inscriptions et belles lettres*, vol. xlv.).—Baudrillart, *Éloge de Turgot*, Paris, 1846.—Foucin, *Essai sur le ministère de Turgot*, Paris, 1877.—Batbie, *Biographie de Turgot*.—Batbie, *Turgot Philosophe, Économiste et Administrateur*, Paris, 1861.—L. DE LAVERGNE, *Les Économistes français du XVIIIe siècle*, Paris, 1870.—G. D'Hugues, *Essai sur l'Administration de Turgot dans la généralité de Limoges*, Paris, 1859.—F. Cadet, *Turgot*.—Mostier, *Turgot, sa Vie et sa Doctrine*.—Ch. Henry, *Correspondance inédite de Condorcet et de Turgot*, 8vo, Paris, 1882.—Léon SAY, *Turgot*, Paris, 1887 (Eng. translation by G. Masson, London, 1888).—A. Neymarck, *Turgot et ses Doctrines*, 2 vols., 8vo. Paris, 1885 (careful and trustworthy).—Robineau, *Turgot*, Paris, 1889.—S. Feilbogen, *Smith und Turgot*, Vienna, 1892.—W. B. Hodgson, *Turgot; his Life, Times, and Opinions*, London, 1870.—J. Morley, "Turgot" in *Critical Miscellanies*, vol. ii. 1886.—W. Walker Stephens, *Life and Writings of Turgot*, London, 1895 (the most complete English account).—Henry Higgs, *The Physiocrats*, London, 1897.] H. H.

[Since this article was written Monsieur G. Schelle has published a volume on Gournay, and Prof. W. J. Ashley has edited a new translation of *The Reflections on the Formation and Distribution of Wealth*.]

TURKEY COMPANY, or as it was also called the Levant Company, was a fellowship or corporation of merchants who in 1605 obtained a charter from James I. licensing the persons therein named to be "one Fellowship and Body Corporate and Politic by the name of Governor and Company of Merchants of England, trading to the Levant Seas."

Unlike the French and Italians, the English had not until the late 16th century made a speciality of eastern traffic. They had been content to receive their oriental wares and spices at second hand from the Venetian merchants who, from a very early time, annually despatched a richly laden fleet to Flanders which touched at our shores. But a quarrel with the rough Southampton seamen early in the 14th century caused the offended Venetians to avoid England, and it was not till the opening of the 15th century that their trade with England was renewed. One of their argosies was, however, wrecked off the Isle of Wight, and for the second time the Venetians declined to continue the traffic. Henceforth the English were compelled to go in search of these commodities for themselves.

In 1550 Captain Bodenham (ANDERSON, vol. ii. p. 87) was the first Englishman who proceeded as far as the Grecian Isles. In 1553 Anthony Jenkinson visited Aleppo, and here paid for certain trade privileges which were made the basis of all future stipulations with the Turks. But the terrible cruelties practised by the African pirates who infested the Mediterranean very much indisposed the English merchants for the Levant trade; and it was not till 1581 that the first commercial treaty was drawn up between the queen of England (Elizabeth) and the Ottoman Porte. In accordance with this, a charter or licence for trade to the Grand Seigneur's dominions was granted for five years to certain persons forming a fellowship of merchants. The licence was subsequently renewed for twelve years, and Sir Edward Barton was sent out as first resident ambassador at Constantinople. He died in 1597.

In 1605 these terminable licences were replaced by the perpetual charter mentioned above; and Sir Thomas Glover was sent out as ambassador. In 1643 some ambiguity having arisen from the terms of the charter, an ordinance was passed explaining and extending their privileges. At the Restoration Charles II. renewed their charter.

By these instruments the company was invested with power to fine and imprison members and subordinates who disobeyed its orders. No one might send ships to the parts designated by their charter but such as were free brothers of the corporation, or otherwise licensed by them, who were to pay £20 for admission. Their commerce extended to all parts of the Grand Seigneur's dominions, in Asia, Africa, and Europe, on the shores of the Mediterranean, the Archipelago, Levant, and adjoining seas and bays as far as Constantinople, to Venice on the one side, and to Ragusa on the other, excepting, however, the coasts of Italy, France, of Spain on the Mediterranean, with Malta, Sicily, Corsica, and other islands in that sea.

The company imported silk and other oriental goods in return for English woollen cloth taken out.

The extensive powers granted to the company, justified as they were by the despotic nature of the government with which the company had to deal, excited much jealousy at home.

The company, however, had never been an exclusive or oppressive monopoly such as the EAST INDIA or the GREENLAND COMPANY was, but on the contrary was based on the assertion of the inestimable liberty of trade. Every merchant who could pay the required entrance fee was of right admitted a member, and was then entitled to trade on his own account. The trade was similarly prohibited to all who were not members of its fellowship.

The trade, however, languished, and in 1753 the case of the Governor and Company of Merchants trading to the Levant Seas having come before parliament, it was sought to freshen it up, by opening it to all comers. In 1754 was passed "An Act for enlarging and regulating the trade into the Levant seas" (26 Geo. II.) by which the company was opened to all English merchants paying £20 for admission to its rights and privileges.

In 1803 a most important change was effected with regard to the Turkey Company; government assumed the payment and appointment of the ambassador and his secretaries, with some additional consuls. In 1821 a second step was taken: it was decided that the whole of the company's establishment should be in the hands of government. This being announced to the company, by Mr. Secretary CANNING, with the assurance that "it resulted solely from considerations of public expediency, and in no degree from any disrespect, or disposition to impute any blame to their past administration," the Directors called a special court, who accorded to the propriety of the government's proposal. They also saw that their existence as a body, however useful for the protection and extension of commerce on their first establishment, was now no longer so; they therefore proposed to surrender their charter also, "as an offering to the enlarged and liberal spirit of commerce, which now distinguished England." Thus was dissolved as an "antiquated anomaly" a body which had existed with distinction for a period of 244 years, during which time, the appellation of Turkey merchant was one of the most honourable that could be acquired.

[*An account of the Levant Company* (Br. Mus. Cat., T. 1146 (8)), 1825.—Postlethwayt's *Univ. Dict. of Trade*, 1751, fol., vol. ii. p. 380, art. "Oriental Trade."—*Ency. Brit.* (8th edit.), p. 384, art. "Turkey."—J. Tucker's *Reflections on the expediency of opening the trade to Turkey, and shewing the abuse of monopolies*, Lond., 1753.—*Some observations on a late Pamphlet entitled "Reflections on the expediency of opening the trade to Turkey,"* Lond., 1753, 8vo.—*Reasons for Preserving the Public Market of Blackwell Hall, and restraining the Levant Co. from deferring their shipping as long as they please* (Br. Mus. Cat., 816 m. 14 (69)), 1696 (?), s. sh. fol.—*An Answer to the false suggestions of the Italian Merchants* (*By the Turkey Merchants*), 1720, fol.]

A. L.

TURNPIKE TRUSTS. Throughout the mediæval period the maintenance of roads in England appears to have been left to private benevolence. In the reign of Philip and Mary an act was passed to compel every parish to maintain the roads within its limits, and to appoint a parish surveyor for that purpose. But great highways traversing many parishes could not be kept in proper condition by the disjointed efforts of parochial authorities. Some parishes were unable, and most parishes were unwilling, to discharge their statutory duty. The most important roads remained in an execrable condition till the early part of the 18th century, when the extraordinary growth of commerce and manufactures compelled reform. It then appeared most convenient and equitable to make those who used the roads pay for their improvement. Turnpikes were erected and tolls exacted on the principal highways. These turnpike roads were regulated each by a separate act renewed from time to time. The execution of the acts was confided to bodies of trustees or commissioners. At one time the turnpike trusts numbered several thousands. But the inconvenience of levying tolls has led to the gradual suppression of turnpikes, and to other arrangements for keeping highways in proper condition. The

turnpike trusts began to diminish rapidly after 1850, and probably all have now disappeared.

[See Cunningham, *Growth of English Industry and Commerce*, vol. ii., and authorities therein cited.—Wright and Hobhouse, *Local Government and Local Taxation.*] F. C. M.

TURTON, THOMAS (1764-1844) of Starborough Castle, Surrey, barrister, baronet (since 1796), and M.P. for Southwark (1806-12), wrote *Address to the Good Sense and Candour of the People in behalf of the Dealers in Corn* (1st and 2nd eds. 1800), in which he advocated free trade in corn, ascribed the dear corn, like A. YOUNG, to scarcity, and deprecated the convictions of some four hundred corn dealers, etc., and especially Rusby (T. Peake, *Additional Cases in Nisi Prius*, p. 189), for regrating, etc. He denied that rings could keep up prices; as that would require "the eyes of Argus, the hands of Briareus, and the purse of Crœsus."

Turton's opposition to the "Report of the Bullion Committee" (*Hansard*, vol. xix. p. 1051, vol. xx. p. 937) was based on the usual fallacies. J. D. R.

TUSSER, THOMAS (c. 1525-1580), the one English poet of agriculture, and one of the very earliest writers on the subject in the vernacular, was the author of a collection of metrical prescriptions and comments, the *Five Hundred Points of Good Husbandry*, which enjoyed a great vogue in the 16th and 17th centuries, and is now a valuable source of information concerning the agriculture of the Elizabethan period.

[Tusser's *A hundreth good pointes of husbandrie*, composed of a hundred four-line stanzas, appeared in 1557. There were probably three or four editions of this, before, in 1573, Tusser issued his much larger and almost entirely new work, *Five hundreth pointes of good husbandry united to as many of good huswifery*. Two later editions were prepared by the author in 1577 and 1580, with numerous small changes. Between 1580 and 1638 there were as many as eleven editions; and the book was several times reprinted subsequently. The reprint (1878) by the English Dialect Society, edited by W. Payne and S. J. Herrtage, collates the edition of 1580 with those of 1573 and 1577, gives a list of all the recorded editions, provides a valuable comment both philological and historical, and reprints the *Hundred Points*. Perhaps the most interesting section of the work is that entitled *A comparison betweene champion countrie and severall* (see CHAMPION AND SEVERALTY). An account of Tudor farming as described by Tusser is given in R. M. Garnier, *History of the English Landed Interest* (1892), i. 318 *et seq.* See also R. Prothero, *Pioneers and Progress of English Farming* (1888), p. 30.] W. J. A.

TWELVE TABLES, ROMAN LAW. See ROMAN LAW.

TWISS, SIR TRAVERS (1809-1897), the son of a Denbighshire clergyman, was educated at University College, Oxford, where in 1830 he obtained a first-class in mathematics and a second in classics. He became a fellow and tutor of his college, and successively public examiner in classics and in mathematics at Oxford, Drummond professor of political economy, professor of international law at King's College, London, and Regius professor of civil law at Oxford, which post he held from 1855 to 1870. But his scholarship and energy soon won distinction for him on wider fields than those of academic work. He joined the legal profession and was attracted to that now almost extinct branch of it which is concerned with Roman, ecclesiastical, and admiralty law. He became an advocate of Doctors' Commons, and rapidly attained high professional advancement. One after another the offices of vicar-general of the Archbishop of Canterbury, chancellor of the diocese of London, advocate-general of the admiralty, and queen's advocate-general fell into his hands. Soon after his appointment in 1867 to this last post, now abolished, the honour of knighthood was conferred on him.

The catastrophe which put an end to his official career in 1872 left him more leisure for literary work. From early manhood he had been a prolific writer, and the multiplicity of the subjects he dealt with is not more remarkable than the learning displayed in one and all of them. He ranged from the pure scholarship of an edition of Livy to the practical politics of a constitution for the Congo Free State, drawn up by him in 1884 at the request of the king of the Belgians. Though he will be chiefly remembered by his writings on INTERNATIONAL LAW, he made a notable contribution to economics when he published in 1847 his *View of the Progress of Political Economy in Europe since the 16th Century*. In this, as in his other works, he showed the historical bent of his mind. His wide reading supplied him with numerous precedents, and he was happier in applying them to new cases than in harmonising accepted principles or striking out fresh lines of thought. His great work on the *Law of Nations considered as Independent Political Communities*, published in 1861, is a monument of deep erudition and patient historical research. But it must not be supposed that he was merely a scholar. He was also a skilled jurist and an able man of affairs. He served the country on several royal commissions, notably those on neutrality and naturalisation, the labours of which resulted in important modifications of our laws respecting the subjects with which they were concerned. He was also legal adviser to the British plenipotentiaries at the West African conference of 1884-85. His reputation as a publicist extended over the civilised world. He was a member and vice-president of the *Institut de Droit International* and a member of the Society for the codification and reform of the law of nations. T. J. L.

The View of the Progress of Political Economy in Europe since the 16th Century, published by Travers Twiss, 1847, was the outcome of the course of lectures delivered by him as professor of political economy at Oxford in 1846 and 1847. *Habent sua fata libelli.* It is certainly difficult to account, when reading this brilliant sketch of the early course of economic science—even remembering

that the book appeared at the low water period which intervened between the times of Malthus and Mill—for the total oblivion into which it has fallen. The earlier lectures commence with a very complete account of 16th century English, Italian, and French writers, and trace the gradual development of doctrine in this country, particularly exemplified in the theory of VALUE as shown in the opinions of our early writers from Thomas Mun to Sir W. Petty and Sir Dudley North. Considerable space is given to the works of the school of French economists, and their place in the development of the science is shown. An explanation follows of Law's great financial experiment in France, with the reaction against the principles of Colbert and his encouragement of manufactures and commerce. The later lectures contain an analysis of the chief doctrines of Adam Smith, with some remarks on his relation to those writers on economics who had preceded him, and discuss the subject of population in reference more particularly to Godwin and Malthus. Then follows a complete analysis of Say's remarks on commercial outlets and liberty of trade, with a commendation of Say's "beautiful theory" that "nations can only pay for produce with produce, and that prohibitions against buying are obstacles to selling" (p. 239). The advantages of freedom of commerce are very ingeniously put, that protected labour is labour disadvantageously employed (p. 253). The last lecture traces the history of currency questions in Europe during the preceding century, the issue of assignats in France, the suspension of specie payments in England, closing with a sketch of the Bank Act of 1844, then a recent measure.

The sentence in the preface in which Twiss explains the object that he had in view was "to exhibit political economy by example, and so to show that its leading doctrines are the conclusions of an enlarged experience, and are not, as many persons suppose, mere deductions from arbitrary premises skilfully assumed," vividly places before us not only the object which Twiss had before *him*, but the position of the study at the time when he wrote.

Travers Twiss also wrote *On Certain Tests of a Thriving Population*, four lectures delivered before the University of Oxford in Lent term 1845.

TWO-FIELD SYSTEM. See THREE-FIELD SYSTEM.

TYDEMAN, HENDRIK WILLEM (1778-1863), was a professor of law at the university of Leyden.

He wrote several prize essays. Among these should be mentioned *Over den voor- en nadeeligen invloed van het invoeren der werktuigen in de plaats van menschenhanden in de fabrieken van ons vaderland* (On the favourable and unfavourable influence of the substitution of machinery for manual labour in Dutch manufacture), Haarlem, 1819.—*Over de Gilden of Corporatien van neeringen en ambachten* (On gilds and crafts), 1821. From 1817 to 1822, he was on the staff of the *Magazyn voor het armwezen in het Koningryk der Nederlanden* (Magazine for studies on the question of destitution in the kingdom of the Netherlands). —As announced on the title page, his *Grondbeginselen van Staatshoudhuiskunde* — Elements of political economy—follow the doctrine of N. W. SENIOR, as stated in the lectures delivered by Count ARRIVABENE (*q.v.*) at Brussels.

[*Biograaphisch Woordenboek*, pt. xviii., Haarlem, 1874.] E. Ca.

UDAL TENURE. Land is still held in Orkney and Shetland by this tenure, which has been decided by the Scotch law courts to be allodial possession (see ALOD). It is a relic of Danish rule: the land is simply held by natural right, and is transferred by giving possession on the ground by a stone or other symbol without any writing, but in the presence of the neighbouring inhabitants. Udal lands descend to all the children of the udallers in equal shares. Sometimes a tribute called *scat* (see SCEATTA) is paid to the crown.

[Erskine, *Institute of the Laws of Scotland*, ed. 1838.—Sir Walter Scott, *The Pirate*, ch. i.—S. Laing, *Norway*, cap. 5.] R. H.

ULLOA, BERNARDO DE (dates of birth and death unknown). He was first a magistrate in Seville and afterwards in Madrid under the earlier kings of the Bourbon family.

Ulloa published in 1740 his *Restablecimiento de las Fábricas y Comercio Espanol* (Madrid, 2 vols.) He mainly follows the great work of UZTÁRIZ (*q.v.*), which had been published sixteen years before, but lays stress exclusively on the baneful influence of former Spanish systems of taxation. Though often quoted, Ulloa does not supply such copious and extensive information on the state of Spain as UZTARIZ; both belong to the mercantile school. Ulloa is very bitter (vol. ii. ch. iv.) on the famous ASSIENTO TREATY with England.

A French translation, said to be made by DANGEUL (better known under his *nom de plume* Chevalier NICHOLLS, *q.v.*), appeared in Amsterdam and Paris in 1753 under the title of *Rétablissement des fabriques et du commerce d'Espagne.*

[Wirminghaus, *Zwei Spanische Merkantilisten Uztáriz und Ulloa*, Jena, 1886.] E. Ca.

ULSTER TENANT RIGHT. The body of usages generally comprised under this heading is of somewhat obscure origin. It seems to have arisen from the peculiar circumstances connected with the planting of several Ulster counties with English and Scotch settlers in the 17th century. In order to retain these colonists the proprietors found it expedient to tacitly recognise the interests for which their improvements supplied a basis. Thus the tenant-right system developed by degrees without attracting observation. Even so acute an enquirer as Arthur YOUNG failed to notice it. Before the middle of the present century, however, it was firmly established, as the evidence taken by the Devon commission (1844) amply proves. The essence of the custom consists in (1) the right to undisturbed possession so long as the rent is paid, and (2) the right "to sell his interest . . . in his holding . . . to any solvent tenant to whom the landlord shall not make reasonable objection." The tenant under the custom therefore possesses in modified form "fixity of tenure" and "free sale." The further condition that the landlord shall not by undue increase of rent encroach on the tenant right was also vaguely recognised, but was naturally much more disputable.

From the very fact that it was merely customary, the Ulster tenant right varied much in the different parts of the province, and even on neighbouring estates. It is more accurate to speak of customs than of a single uniform usage. Some landlords sought to limit the amounts paid by the incoming to the outgoing tenant, and in rare cases to destroy the system altogether. But any infringement of the tenants' privilege was resisted, and led to outrages similar to those in other parts of Ireland.

By Mr. Gladstone's first Land Act 1870 (33 & 34 Vict. c. 46, § 1), the Ulster tenant right was "declared to be legal" and was at a stroke transmuted from "custom" into "law." The necessary result, in accordance with Maine's view, has been a greater rigidity in the system. A large number of legal decisions have dealt with many of the doubtful points, while the later legislation of the act of 1881 and its successors has superimposed the general system of judicial tenancies on the custom. Nevertheless a tenant under the custom still enjoys certain advantages. A breach of statutory conditions does not deprive him of the benefit of the custom, and he is not affected by the decisions (notably that in Dunseath *v.* Adams) limiting the compensation grant for improvements. Further it is at present in debate whether the Ulster custom does not confer a right to have the rent fixed at a lower amount than in the case of an ordinary tenant.

There has been a good deal of controversy as to the principle on which this custom is based. One view is that it is the result of the improvements made by successive tenants which come in time to form the source of a "profit rent" justly due to its producers. Another regarded the right as based on insurance against outrage which followed disturbance of a tenant without payment for his tenant right, and probably both elements were in operation. But the strongest reason for its growth was the advantage to both landlord and tenant. The former was secured against loss of rent in arrear, which was the first charge on the payment for tenant right; he obtained a tenant who had proved his solvency; and he was relieved from expenditure for improvements. The latter obtained security in his occupancy, he could deal more confidently with the land, and he was not exposed to the reckless competition of persons without capital which proved so injurious in other parts of Ireland. Such a custom, moreover, implied a large amount of sympathy between landlords and tenants, and in some degree tended to develop it. These advantages were manifested in the prosperous condition of Ulster.

The strongest objections urged against the Ulster custom were (1) the division of ownership that the system required; and (2) the unnecessary expenditure of capital by an incoming tenant which hampered him in working his farm. Both, it may be said, lose their force if account be taken of the peculiar circumstances of Ireland with its sharp division of classes and the insecurity of agricultural investments by the tenants.

Analogous usages existed in some other parts of Ireland, such as the custom on the Portsmouth estate, and were likewise legalised by the Land Act of 1870 (see art. F'S, THE THREE).

[See the *Report* of the Devon commission (1845), also that by the Bessborough commission 1880 (C. 2779).—W. N. Hancock, *The Tenant Right of Ulster considered economically*, Dublin, 1845.—M. Longfield, "The Tenure of Land in Ireland," ch. vi. in *Cobden Club Essays*, 1870.—W. O'Connor Morris, *The Land Question of Ireland*, chs. xxiv. xxv. 1870.—R. R. Cherry, *The Irish Land Acts*, pp. 14 and 18, 2nd ed. Dublin, 1893.] C. F. B.

ULTRA VIRES. The doctrine of "ultra vires" is of importance in the case of corporations and companies, which being always created for specific purposes only, have only a limited range of powers. Any act transgressing these powers is said to be "ultra vires." In the case of a company incorporated under the Companies' Acts, an act may be "ultra vires" of the company or "ultra vires" of the directors. If the act is done for an object not covered by the object clause in the memorandum of association, it is "ultra vires" of the conpany and is void for all purposes, but if the act is authorised by the memorandum and merely transgresses the powers given to the directors by the articles, it may be ratified by a general meeting of the shareholders, and thereby is rendered valid. (Grant *v.* United Switchback Company 40, Ch. D. 135). Directors using the funds of the company for unauthorised purposes are personally liable to replace them. E. S.

UNDERTAKERS. See EMPLOYERS AND EMPLOYED; ENTREPRENEUR.

UNDERWRITER. The term applied to the insurer of ships and their cargoes from the custom of writing his name and the amount of risk he undertakes at the foot of the policy.

[Arnould, *Marine Insurance*, London, 1887 (see art. INSURANCE, MARINE).] J. E. C. M.

UNDERWRITING. The members of the association of insurers of ships known as Lloyds sign their names individually at the foot of the policy, and opposite thereto the sum insured by each in figures, and also in words, with the date of so doing. This is called underwriting the policy for so much, and each thereby makes a separate contract, in the terms of the instrument, with the assured, of the particular amount set opposite to his name.

[Arnould, *Marine Insurance*, London, 1887.] J. E. C. M.

UNEARNED INCREMENT. See INCREMENT, THE UNEARNED.

UNFUNDED DEBT. See DEBTS, PUBLIC.

UNION, POOR LAW. Unions are unions of parishes. Their formation has affected rating, settlement, and removal, and the general administration of poor relief.

By 43 Eliz. c. 2, the parish was made the local unit for administration and rating, with as its officers the churchwardens and overseers of the poor. Later, parishes were incorporated under local acts (*e.g.* Bristol, 7 & 8 Will. III.; Exeter, etc.), or joined for the provision of common work or poorhouses under 9 Geo. I. c. 7 (1722), or they might be combined by justices under Gilbert's act 1782 (22 Geo. III. c. 83). In this case guardians were appointed for each parish with the authority of overseers, except in the making and collection of rates. In 1834 there were 364 parishes incorporated under local acts, and 283 under Gilbert's act. Under the Poor-Law Amendment Act of 1834 the poor-law commissioners formed groups of parishes into unions, and by degrees recast the Gilbert and other incorporations. In each union was created a board of guardians representative of the parishes included within it, with a common administration and a common fund. The guardians formed a union assessment committee, and the overseers of each parish made out for them a valuation list of its rateable hereditaments (for forms, etc., see Archbold's *Poor-Law*, by Cunningham Glen, 1885). On the approval of these lists by the committee, the overseers and churchwardens made a poor rate according to the rateable value of the parish with the consent of two or more justices. The overseers then paid over to the guardians the sums chargeable to their parish. Later, by the Union Chargeability Act (28 & 29 Vict. c. 79) 1865, separate parochial chargeability of the poor in the union came to an end, and the overseers now pay over to the guardians such sums as they require according to the annual rateable value of each parish. From being the administrative unit the parish thus became the fiscal unit for valuation and the collection of the poor rate, and is now defined (29 & 30 Vict. c. 113) as a place for which a separate poor rate is or can be collected, and for which a separate overseer is or can be appointed. For the metropolis there are special rating arrangements.

After the act of 1865 there was no longer any object in overseers pressing for the removal of paupers from one parish to another within the union, in order to avoid their acquiring a settlement and becoming chargeable, for all parishes in the union now shared alike according to rateable value. Questions of settlement and removal thus became practically union questions.

As to general administration (*Report of Poor-Law Commissioners*, 1834, and *The Union and the Parish*, 1839), the unions were formed in order to establish union workhouses (see WORKHOUSES) for the relief of able-bodied pauperism and its prevention, to neutralise local and parochial influences by the adoption of a larger area, to introduce a system of paid relieving and other officers in the place of the annually elected unpaid overseers, and to establish a simpler and better regulated administration acting under the orders of a central board. On all these points the reform was fully justified.

The Local Government Act of 1894 (56 & 57 Vict. 73) provides for an alteration of boundaries of unions, and changes the qualifications of the local elector and of the guardian, but it does not alter the union system (cp. *The Local Government Act*, Macmorran and Dill, 1894).

(See also ALLOWANCE SYSTEM; GILBERT'S ACT; POOR LAW, ADMINISTRATION OF; POOR LAW, HISTORY). C. S. L.

UNIONS, MONETARY. See LATIN UNION.

UNIT OF ACCOUNT. The unit of account is usually, but not always, a coin. Thus in Great Britain the sovereign, in France and the countries allied in the monetary way the franc, in the United States the dollar, in Holland the guilder, are respectively the units in which accounts are reckoned. The unit of account and its subdivisions are frequently of conventional importance, through being the amounts usually paid on certain occasions or for certain services. Thus in England the entrance charge to many exhibitions is 1s. while in France it is the franc. The guilder also under some circumstances takes the place filled by the two last named coins. The unit of account is therefore not without considerable influence in mercantile transactions and in social life, though, while as in France accounts are rendered in its name, the coin itself is never used for large payments.

UNIT OF VALUE indicates "something by comparison with which we may ascertain what is the value of any other thing" (Mill, "Of a measure of Value," *Pol. Econ.*, bk. iii. ch. xv.). This ideal measure need not be a material object (Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 1, note). It should be, according to modern analysis, equivalent to a unit of marginal utility or disutility. Prof. Irving Fisher, in his *Mathematical Investigation*, conceives a unit of the former sort which he professes to call a "util." The last hour of the working day—or rather the last which a person is induced to work, which might be the earliest — measures marginal disutility (Jevons, *Theory of Political Economy*, ch. v. J. B. Clark, *Quarterly Journal of Economics*, vol. v. p. 296). But the quantity of labour which Adam Smith considered as a measure of value was not the *marginal* hour; but rather "one day's ordinary muscular exertion of one man" (Mill, *loc. cit.*).

These distinctions have a bearing on the problem of correcting the value of money by INDEX-NUMBERS. If, as in fact during recent years, the productivity of labour and the abundance of products per head of population have increased, ought the standard of deferred payments to represent a constant quantity of goods, or a constant quantity of labour? Against the first it is argued that the same quantity of goods no longer represents the same marginal utility. It is replied that,

as the goods restored would not all be employed at the margin of expenditure, the increase in the quantity of goods payable by the debtor should not be measured by the decrease in marginal utility. It may be rejoined that the labour standard, in the only form in which it could be practically applied—securing that the money value of the produce per head should be constant, —would *not* be a measure of *marginal* disutility.

[See the authorities referred to in the memorandum on "Recent Writings on Index-Numbers" in the *Economic Journal* for Mareh 1894; and arts. INDEX-NUMBERS; TABULAR STANDARD.]

F. Y. E.

UNITE. English gold coin issued during the period 1604 to 1661 (see GUINEA). F. E. A.

UNPRODUCTIVE CONSUMPTION. Adam Smith, while dwelling repeatedly on the distinction between productive and unproductive labour, nowhere uses the term unproductive consumption, nor would it have occurred to him to do so. He saw, and saw rightly, that all consumption, all employment of wealth as revenue, is essentially the destruction of wealth, not its production, and that consequently, to speak of productive consumption, which seems necessarily implied as the counterpart of unproductive consumption, would amount indeed to a contradiction in terms. Mr. Mill, in his *Principles of Political Economy*, was the first English writer to make use of the phrase, and to emphasise the distinction. At the close of his well-known chapter, bk. i. ch. iii. on *Unproductive Labour*, he writes as follows, p. 64. "The distinction of productive and unproductive is applicable to consumption as well as to labour. All members of the community are not labourers, but all are consumers, and consume either unproductively or productively. Whoever contributes nothing directly or indirectly to production is an unproductive consumer. That alone is productive consumption which goes to maintain and increase the productive powers of the community; either those residing in its soil, in its materials, in the number and efficiency of its instruments of production, or in its people. We see, however, by this that there is a distinction more important to the wealth of a community than even that between productive and unproductive labour, the distinction, namely, between labour for the supply of productive, and the supply of unproductive consumption; between labour employed in keeping up or in adding to the productive resources of the country, and that which is employed otherwise." A glance, however, at Mill's own illustrations and the slightest reflection upon them will be sufficient to show how impossible it would be in practice to hold consistently to the distinction here insisted on, and how little is consequently gained by it. Mr. Fawcett, as was too often the case, follows somewhat blindly in this matter in the footsteps of Mill. In bk. i. ch. iii. of his *Manual*, pp. 15, 16, he gives an abstract or summary of the views already expressed by Mill. F. Walker, in his *Political Economy*, pt. v. ch. iii., approaches the question from a more hopeful side. While admitting that it is impossible to draw any very sharp line between productive and unproductive consumption, since much of what is spent on what might be called luxuries, and in an earlier age and state of civilisation would certainly have been so called, really tends to give increased productive efficiency to the labourer, he yet notes—what is indeed obvious—that various kinds of consumption have varying effects on a nation's productive powers, and he deplores the want of any treatise which discusses consumption from this purely economic point of view. "We need," he says, § 406, "a new Adam Smith or another Hume to write the economies of consumption in which would be found the real dynamics of wealth, to trace to their effects upon production the forces which are set in motion by the uses made of wealth. When this has been done, but certainly not till then, shall we be able to place upon the terms productive and unproductive consumption something like an intelligible sense." W. A. SP.

UNPRODUCTIVE LABOUR. See PRODUCTIVE AND UNPRODUCTIVE LABOUR.

UNSKILLED LABOUR. See LABOUR.

USANCE. This word is sometimes used to denote the time for payment fixed by custom for bills of exchange. This customary time varies according to the situation of the place of issue and of the place of payment. Thus the customary time for bills drawn on London from South America is ninety days' sight, whilst the customary time for bills drawn in London from Indian ports is three months' sight. In most places, however, fixed customs have ceased to exist, and the time for payment depends on the particular circumstances of each case and the arrangements between the parties.

In some countries the bills of exchange codes have stereotyped the usances by fixing once for all the time which the word "usance" implies when found in a bill of exchange, and in such countries bills may be drawn at one or more usances after date or after sight.

The following is a list of usances fixed in this manner by law:—

France, Holland, Belgium	Thirty days reckoned from the day following the date of issue, or thirty days from acceptance.
Spain	Sixty days in the case of bills drawn from Spain, Portugal, France, England, Holland, and Germany; ninety days in the case of other bills.

In the United Kingdom, Germany, Austria-Hungary, Switzerland, and a number of other countries, documents payable at one or more usances from date or from sight are not recognised as bills of exchange unless they are drawn in one of the countries the codes of which have recognised usances in the above-mentioned manner. E. S.

USE, VALUE IN. See UTILITY; VALUE.

USES, CHARITABLE (History of Law as to). Certain restraints have been imposed by English law on gifts to charitable uses. By statute 43 Eliz. c. 4, charitable uses were defined to include the relief of aged, impotent, and poor people, the maintenance of sick and maimed soldiers and mariners; schools of learning, free schools, scholars in universities; repair of bridges, ports, havens, causeways, sea-banks, and highways; education and preferment of orphans; relief stock, or maintenance for houses of correction; marriages of poor maids; support, aid, and help of young tradesmen, handicraftsmen, and persons decayed; relief or redemption of prisoners and captives; for aid or ease of any poor inhabitants concerning payment of FIFTEENTHS AND TENTHS; setting out of soldiers; and other taxes. This definition of charitable uses has been somewhat enlarged by judicial decisions, but it apparently remains authoritative in spite of the repeal of the act of Elizabeth by the Mortmain and Charitable Uses Act of 1888 (see MORTMAIN). Gifts of personalty to charitable uses have never been put under legal restriction. But, for different reasons at different periods, the law has prohibited gifts of land to corporate bodies. And even when a charity is not incorporated it has been thought advisable to forbid testamentary gifts of land to it, as such gifts may be made by dying men under solicitation and to the prejudice of their families. Hence two distinct forms of restraint on gifts of land to charitable uses:—(1) Under the law of mortmain, properly so-called, which rests on the statute *De Viris Religiosis* (7 Ed. I. c. 13) all gifts of land to corporations are void unless made with the licence of the crown. Charitable institutions which have been incorporated are therefore incapable of taking gifts of land, except with the sanction of the crown. (2) Under the Mortmain Act, improperly so-called (9 Geo. II. c. 36), a gift to any charity, of land or of money to be invested in land, had to be made by deed executed at least twelve months before the death of the donor, and enrolled in the court of chancery within six months of execution. Such gifts therefore could not be made by will. The Mortmain and Charitable Uses Act 1888 consolidates the law of mortmain in both senses of that term. There are certain statutory exceptions to the rule laid down in 9 Geo. II. c. 36, and re-enacted in the act of 1888. [As to these exceptions and as to the change in the law brought about by the Mortmain and Charitable Uses Act 1891, see TRUSTS, CHARITABLE.]

[Williams, *Principles of the Law of Real Property.*—Digby, *History of the Law of Real Property.*—Mitchison, *Charitable Trusts and Charity Commission Acts.*—Tudor, *Law of Charitable Trusts.*] F. C. M.

USSELINCX, WILLIAM (living early 17th century), inhabitant of Holland, wrote on the peace between Holland and Spain in 1608, which prevented the erection of the Dutch West India Company.

Vertoogh, hoe nootwendigh het sy voor de Nederlanden te behouden de Vryheyt van te handelen op West Indien, 4to, 1608. This work suggested the Dutch West India Company, and is the original of the *Excellent Discourse*, printed in the English edition of Jacque Le Hermite's Relation, 1625.—*Memorie van de gewichtige redenen* (Relation of the important Reasons which should persuade the States General not to abandon the Commerce and Navigation to the (East and West) Indies), 4to, 1608.—*Bedenckinghen over den Staet* (Considerations on the State of the Netherlands, their Navigation, Commerce and general Trade), 4to, 1608.—*Naerder Bedruckingen over de zeevaerdt* (Further Considerations on the Navigation, Commerce, and Trade of the Netherlands), 4to, 1608.—*Discours by Forme van Remonstrantye* (Discourse in the form of a Remonstrance, by which the Netherlands will secure as great advantage in her navigation round the Cape as through the Straits of Magellan, etc., 4to, 1608).—*Onpartydich Discours op te handelinghe van de Indien* (Impartial Discourse on the Commerce with (the East and West) Indies), 4to, 1608.

Usselincx was engaged in the formation of the proposed Swedish South Company of 1626. Great efforts were made to find the capital for this undertaking, which was fostered by Gustavus Adolphus (reigned 1611-1633). Preparations were made to send ships to "New Sweden," the proposed Swedish settlement on the Delaware. The connection of Sweden with the Thirty Years' War put an end to the enterprise. [*Handwörterbuch der Staatswissenschaften* (s.v.) Südseegesellschaften.]

(See EAST INDIA COMPANY.)

USTARIZ, JERONIMO DE. See UZTÁRIZ.

USUCAPIO. Ownership by quiet possession. By the early Roman law if a man had purchased *bonâ fide*, or had obtained by other legal means, a thing from a person whom he believed to be the owner but who really was not, he might acquire it by use (*usucapiat*) for one year if a movable, or for two years if an immovable which was in the *solum Italicum*. The mere *possessio* was turned into *usucapio* by time. Justinian altered the necessary time for movables to three years; and for immovables in any place, if holder and claimant lived in the same province, to ten years. If they were in different provinces twenty years were required.

[*Institutes of Justinian*, bk. ii. tit. 6.] R. H.

USURY, USURY LAWS. See CANON LAW; DRY EXCHANGE; INTEREST AND USURY.

USUS signifies (1) a mode of acquiring marital power (*manus*) over a wife by living with her continuously for a year which was recognised by the law of the Twelve Tables. (2) A personal servitude by which one person is entitled to take the fruits or produce of

another's property simply for his own use, not for the purpose of letting or selling.

E. A. W.

UTI POSSIDETIS. This interdict is the procedure by which a person in possession of land or building is protected from arbitrary interference on the part of any one, its object being to maintain a person in the possession he has acquired. The possessor at the time the interdict is granted has the benefit of this protection, provided that he has not acquired possession from the opposite party in the proceeding, either by violence (*vi*), or furtively (*clam*), or by his leave or licence (*precario*).

E. A. W.

UTILITY is the power of giving satisfaction (cp. Marshall, *Principles of Economics*, p. 78, 3rd ed.). "Political economy has nothing to do with the comparative estimation of different uses in the judgment of a philosopher or of a moralist" (J. S. Mill, *Pol. Econ.*, bk. iii. ch. i. § 2). "The use contemplated is the simple power of ministering to a purpose, though that purpose were the most absurd, wicked, or destructive to the user" (De Quincey, *Logic of Political Economy*, § vi.). For an object to have utility it must be desired, it need not be desirable. Even the immediate pleasure aimed at is possibly not proportioned to the utility as measured by the sacrifice made in order to satisfy a desire (Marshall, *loc. cit.*, Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 2, and *Methods of Ethics*, on "Nonhedonistic desire").

The relation of utility to value, which exercised the older economists, is thus simply explained by the mathematical school. The value in use of a certain quantity of commodity corresponds to its total utility; the value in exchange to its marginal utility (multiplied by the quantity). The former is greater than the latter; since the utility of the final increment of commodity is less than that of every other increment (see FINAL DEGREE OF UTILITY; MARGIN; VALUE.)

[The subject is treated by almost all economists; particularly well by those above mentioned.]

F. Y. E.

UTOPIAS

Utopias, p. 602; Utopias and Modern Socialism, p. 604.

UTOPIAS, HISTORY OF. Utopias are social romances, or "ideologies" which have appeared at certain epochs of history, especially in the presence of some social crises which turned the eyes of men away from depressing actualities to some imaginary "Nowhere land," where the social ideal might be realised. Such was the *Republic* of PLATO, and the *New Atlantis* of Lord Bacon. Such, too, was the *Utopia* of Sir Thomas More, with its numerous imitations since. These utopias, however, are often only fancy-woven dreams of poetical and philosophical thinkers, but they are also critical transcripts of the social ideas of the time expressive of views on what is, in comparison of what might be. They are pictures of a perfect society having for their background the dark state of existing society as it appears to the mind of the writer; in short they are suggestions in myth, suggesting by a story social reform—plans which the writers could not, or dared not, state in plain terms. Thus Plato sketched an ideal commonwealth based on justice, in which the opposite dangers of despotism and democracy would disappear, and where in circumscribing the power of accumulating private property, and the "intemperate craving after wealth," the danger to the capitalist class enriched then by colonial enterprise, arising from the envy and cupidity of Demos, could be avoided. Living as he did in an atmosphere of political and social fermentation, Plato wrote the *Republic* in the hope of raising the social level by counteracting the greed of egotism. For this reason he recommended a communistic state and the abolition of private property; "if they will follow their rules," he says of the moneyed aristocracy, from whom the change is to emanate, "they will be safe themselves and the saviours of the city" (bks. ii. and viii.). With the return to classical ideals which accompanied the Renaissance these speculations of the social innovator of antiquity were revived and enriched by an accretion of Christian sentiment. The millennial hopes of Christianity placed the golden age in the future, with love of the brethren, or the enthusiasm of humanity for its moving cause. In More's *Utopia* we have this coalescence of Hellenism and Hebraistic Christianity, in the conception of an economic ideal. Appearing as it did in the reign of Henry VIII. (1516), its criticism is of necessity veiled, though it suggests a sad picture of the social condition of the times—luxurious idleness and grinding poverty breeding crime and vagabondage and other evils arising from the abrogation of peasant proprietorship, the secularisation of church property, the conversion of arable land into pasture, royal monopolies, and over-taxation. Utopia by way of contrast is described as a "Commonwealth of Equals," its government is democratic and elective. The reduction of the hours of labour to six encourages cultured refinement and the enjoyment of the product of liberal arts. Yet productivity is heightened, since all alike in the community would have to work; wealth is held in contempt, the wearing of gold being a badge of slavery; only limited, not absolute ownership is permitted; voluntary ascetics perform the meanest offices; variety of pursuits, and rational means of enjoyment, add to the interests and relish of life. In the fragment of Bacon's *New Atlantis* (1624, published 1629), we notice the influence of the age of new discoveries and the

romance of travel, giving "the certainty of a new unexplored kingdom of knowledge within the reach and grasp of man." A similar prediction is found in the *City of the Sun* (1637), the utopia of CAMPANELLA, a Calabrian monk, a friend of Galileo, and one of the "Novi homines" in Italy. Here the hours of labour are reduced to four, all are to have a share in it, and under the rule of the "chief metaphysician" and his spiritual subordinates, a new social order of enlightened equality is to rise out of the old. The *Oceana* of Harrington (1656), dedicated to Cromwell, addresses itself chiefly to the problems of government, which, however, he makes to depend on the "balance of property." The *Idea of a Perfect Commonwealth*, by D. Hume (1752), is purely political. The most remarkable utopias of the 17th century which serve as links between the social schemes of the Reformation and the Revolution, are Vairasse's *La République des Sévérambes* (1677),—*Le testament de Jean Mezlier* (1690), and the *Voyage en Salente* in Fénelon's *Télémaque*. They have been aptly described as "state-romances," as they are the products of an age of state absolutism. Mezlier's *Testament*, as abridged by Voltaire, strikes the first note of the revolution. It alludes to "the abuses and errors in the conduct of governments" and demands autonomy of the commune. Next in order comes MORELLY'S *Basiliade*, conceived in the spirit of the 18th century, and giving a sketch of society framed on the principles of the *Code de la Nature* by the same author. It speaks of private property as the "author of all crimes," and of private interest as the "universal pest" of society. It proposes a commonwealth where all have a share in the work done according to their capacity, and all are rewarded out of the common fund where inequalities are discouraged, the strong supplementing the requirements of the weak. Through MABLY, Sylvain Maréchal, and Marat, their ideas found their way into the convention. But the revolution, in proclaiming the principle of natural liberty and *laissez-faire*, by establishing free competition and contract, entirely dispelled these dreams of a "republic of equals" in its diametrical opposition to centralised government under "social authorities." The utopias of the 19th century, therefore, are pictures of a state of society in which the centrifugal forces of individualism, set free by the revolution, are restrained by organisation, association, and a "centralised industrialism," where liberty and the principles of liberty and law, authority and the sovereignty of the people, are alike recognised. Such was the picture of social fraternity drawn by Etienne CABET in his *Voyage en Icarie* (1840), the utopia of the modern proletariat. Here there is neither property nor money, buying nor selling. All alike work for the community which provides for their needs. Manufactures and industries are public property, and the executive regulates the production and consumption of commodities. The principal meal is taken in common halls, and at the age of sixty-five no man, at that of fifty no woman, is required to work any more. An elaborate scheme is propounded to bring about without revolution a gradual transition from the old to the new order of things. This is the last of the pre-scientific utopias. The economic value of utopias is partly historical in furnishing the data for the historian of social evolution who sees reflected here the social tendencies, as well as those economic conditions which give rise to the conception of the social ideals of the age. They may also supply instruction. From the partial realisation of former utopias we may infer possibilities of economic progress in those now in vogue, and discover a clue to the conditions of success. Some of the achievements of social improvement may be traced to the influence of those idealised conceptions of a more perfect society which have succeeded in drawing attention to social wants, and in kindling enthusiasm for social reforms in quarters which purely scientific works would not have reached. To some degree, too, they could not fail in affecting the speculations of the economist or the political consideration of the statesman. They may also serve as object-lesson teaching ardent philanthropists and others the limited range of possibilities in social amelioration, and that it is only by patient work and hope that in the slow and steady progress of our race the fanciful conceptions of a perfect state of society become eventually translated into something approaching to reality. The disappointments to which they have given rise must be attributed to the exaggerated idea of human perfectibility on which they are founded. If all men were good and perfect, social commonwealths would be feasible, but this, as Sir Thomas More says in the *Utopia*, "will not be yet for these many years."

[*Ideal Commonwealths*, with an introduction by Henry Morley, forming No. 23 of his "Universal Library," 4th ed. 1889.—A. Gehrke, *Communistische Idealstaaten*, 1878.—*Social Utopias* in Chambers's *Papers for the People*, a very able and succinct account from the pen of Thomas Frost (date unknown).—R. Mohl, "*Die Staatsromane*" in *Zeitschrift für das gesammte Staatswesen*, 1845, vol. i.—M. Kaufmann, *Utopias, or schemes of Social Improvement*, 1879.—Fr. Kleinwächter, *Die Staatsromane*, 1891.—J. Petzler (the exile from France), *Social Architecture*, 1876.—The same, *Life in Utopia*, 1890.—J. J. Thonissen, *Le Socialisme*, 1853.—Theodore D. Woolsey, *Communism and Socialism*, 1879.—F. Villegardelle, *Histoire des Idées Sociales, etc.*, 1846.—Also Malon's articles on "La Protestation communiste

dans le passé" and "Les précurseurs du socialisme moderne" in *La Revue Socialiste* for December 1889 and January 1890.—E. de Laveleye's article in *Contemporary Review* for January 1890, on "Two New Utopias," also Eugen Richter's *Socialdemokratische Zukunftsbilder*, trans. by H. Wright, 1894, a satirical brochure on the most recent forms of socialism (see COMMUNISM).]

M. K.

UTOPIAS AND MODERN SOCIALISM.—Recent Utopias illustrate the triumph of natural science (E. Bulwer Lytton, *Coming Race*, 1871), of a moral paradox (S. Butler, *Erewhon*, 1872), or of socialism based on contract (G. Rossi, *Un Comune Socialista*, 1884), or on the state (E. Bellamy, *Looking Backward*, 1889; which merely throws Utopian drapery around Lytton Gronlund's *Co-operative Commonwealth*, 1884; Bebel's *Woman*, 1893, 1st German ed., 1883), or of anarchical communism (W. Morris, *News from Nowhere*, 1890; joy in beautiful work is the only motive which holds men together; this is the finest Utopia since More's), or of anarchical individualism (W. Bode, *Indivi*, 1892), or of individualistic co-operation *plus* a free use of land and productive capital, which is practically communism (Hertzka, *Freeland*, 1891; *Visit to Freeland*, 1894; *Entrückt in die Zukunft*, 1895; C. Secrétan, *Mon Utopie*, 1892; M. Flürscheim, *Money Island*, 1896). These recent Utopias are very similar: thus there is but a narrow line between Morris's and Bode's anarchy and between Flürscheim's co-operative societies, which cover the whole state and own land and capital, and Bellamy's state. Socialists who repudiate Utopianism include under that name any set complete scheme (F. Engels, *Socialism, Utopian and Scientific*, 1892; A. Bebel, *Zukunftsstaat*, 1893). J. D. R.

UTTER OR CIRCULATE. See BANKING; BANK NOTE.

UZTÁRIZ, JÉRONIMO DE (born in 1689); under King Philip V. (reigned 1712-1746), he was a member of the council of trade, and of the council of the Indies.

His *Teórica y práctica de Comercio y de Marina . . . para su pronta restauracion*, appeared, Madrid, 1724; two other editions, "corrected and enlarged by the author," followed 1742 and 1757.

In his preface, Uztáriz states that he has consulted all available sources of information and travelled over France, Italy, England, Flanders, Holland, and the western part of Germany, "correcting in the large ports and emporiums of trade what is always defective and doubtful in purely speculative intelligence." His book is a rich mine of information on the population of Spain, its system of taxation and of colonial government and its commercial policy; many interesting documents of the time of Isabella (reigned 1468-1504) are either given in full or in analysis. He was the earliest to point out that the Spanish official census of population generally erred on the side of under-estimating the actua numbers; made for fiscal purposes, account was only taken of the numbers of *vecinos* or householders.

Uztáriz starts from the fundamental proposition that Spain could only be restored to its former power "by a strong military force, a powerful navy, and a well-regulated and still better protected trade" (p. 4, ed. 1724) after the model established in France by COLBERT. The rules he proposes are (1) free admission or with trifling duties of raw materials; (2) high import duties on foreign manufactures; (3) free exports of national manufactures; (4) exemptions or alleviations on such inland taxes as the ALCAVALA (*q.v.*), the Cientos, etc., granted to the national manufacturers. A trade established on these lines is a *comercio útil*, or useful; on any other, it is a *comercio dañoso*, or hurtful. It signifies little whether the customs yield a good revenue; the balance of trade must be the leading aim of the statesmen and monarch. In order to have a useful trade, "we must strive with untiring zeal . . . to sell to foreign countries more produce and articles than we receive from them" (p. 10), Trade ought not to be passive, but active, namely in the hands of the *naturales* (native born subjects). However, he allows advantages to be granted to foreign Roman Catholic manufacturers and operatives in order to induce them to settle in Spain (p. 26); still he considers that the native population of Spain is quite sufficient to uphold an active industry; its numbers have been reduced, not as a consequence of the occupation of America, but of "the poverty which resulted from the destruction of trade and manufactures . . . and the excessive weight of taxation increased by fraudulent and extortionate practices in its levy" (p. 30).

Uztáriz remonstrates against most of the existing abuses: the excessive number of convents, the monopoly granted to Cadiz for the American trade, the crushing export duties levied on manufactures shipped for America, etc. It should be noticed that though anxious that exemptions or alterations of taxation should be granted to manufacturers, he is adverse to "exclusive privileges" and monopolies; thus he objects to the state monopoly of alcohol, though he admits it for tobacco.

Whatever may be our opinion about his theories, Uztáriz was a conscientious, painstaking, and well informed official, honestly striving to raise his country from the dejection into which it had been sunk by the frightful misgovernment of the Austrian dynasty.

The *Teórica* was translated into English by Kippax, *The Theory and Practice of Commerce and Maritime Affairs* (2 vols. 8vo, London, 1751), and into French by Forbonnais, *Théorie et Pratique du Commerce et de la Marine* (1 vol. 4to, Paris, 1753).

[Wirminghaus, *Zwei Spanische Merkantilisten*, Jena, 1886.] E. Cu.

VACANTIA BONA signifies the inheritance of a deceased person which is without an owner, because there is no one who is able and willing to enter upon it. The FISCUS (*q.v.*) was entitled to appropriate property in this condition. E. A. W.

VAGRANCY. From the point of view of the poor-law the vagrant is a destitute casual pauper; from that of the criminal law (Vagrant Act, 5 Geo. IV. c. 83), he is an "idle and disorderly" person, or a "rogue and vagabond" if he commits certain offences, such as wandering about to beg or gather alms, sleeping out, and so on.

Public provision for the casual poor and the repression of vagrancy are considered to be supplementary to one another, but, except on grounds of social expediency, repression by the state does not involve the obligation of state maintenance.

The number of vagrants relieved on 1st January 1896 by the poor-law guardians in England and Wales was 13,239, but a night count on that 1st January showed the actual number of vagrants to be only 7859 (Local Government Board, *A Report*, 1896, p. 419). Thus, as locomotion is easy, the number appeared to be nearly twice as large as it really was. Other night counts of vagrants in casual wards, common lodging-houses, and shelters, confirm this result (cp. for instances, *Charity Organisation Paper* No. 7; report of committee of that society on the *Homeless Poor of London*, 1891; Appendix lxxxii. to the *Report of the Scotch Departmental Committee on Vagrants, Inebriates, etc.*, 1895; and *West Midland Poor-Law Conference*, May 1894). It seems probable that in England and Wales the total number of the migratory poor, including strangers in common lodging-houses and vagrants in receipt of poor-law relief, does not much exceed 30,000. The number of prosecutions for offences under the Vagrant Act in 1895 were for begging, 15,679, for sleeping out, 8159.

The history of the individual vagrant is usually one of personal degradation or incompetency, but economic disturbance increases vagrancy. The less capable morally or intellectually drift into it. The kind of degradation that vagrancy implies is fairly constant and well understood.

The methods of dealing with vagrancy are—(1) punishment and restriction to place of abode or settlement; (2) "correction" with or without employment; (3) employment; (4) restrictive toleration. Burn's *History of the Poor-Laws* (1764) contains a good statement of penal measures, including instances of (1). In the same spirit, though not probably with the same purpose, is 14 Car. II. c. 12, that originated the present law of "settlement" (Glen's ed. of Archbold's *Poor-Law*, 1885). Of (2) "correction with employment," Bridewell, founded by Edward VI., where chastisement was administered with compulsory labour "to the overthrow of the vicious life of idleness," is an instance. By 18 Eliz. c. 5, houses of correction were substituted for jail for the committal of vagrants. Eden (iii. p. 136) gives the rules of the Bury (Suffolk) House, 1588. The adult reformatories now suggested by some are in principle the same as these houses. The Vagrant Act, 5 Geo. IV., now covers the penal side of vagrancy. Of (3) employment as a remedy, the German and other so-called colony systems are instances (see INDUSTRIAL COLONIES). Restrictive toleration (4) fairly defines the English system from the poor-law side. Every destitute casual pauper is entitled to food and lodging in exchange for work. The casual pauper is not removable. His treatment is regulated by the Casual Poor Act 1882 (44 & 45 Vict. c. 36) and subsequent poor-law orders (Macmorran and Lushington, 1890). Casual wards are now usually built on the separate cell or room system. The pauper, on admission, has to take a bath and his clothes are disinfected. He has to do a task of work, and, subject to a large discretionary power in the hands of the authorities, cannot discharge himself till the morning, second day after admission. There is a fixed dietary.

There is need of greater uniformity in the detailed enforcement of the English system. Otherwise it meets fairly the demand for considerate treatment, though coupled with irksome conditions. It does not aim at being remedial though it is restrictive. Remedial measures it leaves to other agencies or to economic change, and it is a fact that only in very few cases of vagrants are remedial measures practicable. On the other hand, if carried out with uniformity it does not foster vagrancy, while in particular cases it allows ample discretion. The history of vagrancy appears to justify it.

[Ribton-Turner, *History of Vagrants and Vagrancy*, 1887.—Eden, *State of the Poor*, 1797. *Reports of Inspectors of Poor-Law or Local Government Board*, especially 1886 and 1889-95.—*Reports of Poor-Law Conferences*, by G. Paul, 1892, and others.—*Dépôts de Mendicité*, Fasc.: No. 10; Rapport, Conseil Supérieur de l'Assistance Publique, France, 1888.—Camille Garnier, *Essai de Bibliographie Charitable*, 1891.—M. Bertsch, *Ueber Landstreicherei und Bettel*, 1894.] C. S. L.

VALERIANI, LUIGI MOLINARI (1758-1828). Born at Imola, near Bologna. A learned man, and well acquainted with the classical languages; he studied poetry, physics, law, and economics. He was appointed in 1797 a member of the legislative body in Milan, and in 1801 professor of public economy at the university of Bologna where Pellegrino Rossi was his pupil.

In his day Valeriani was widely known; he wrote many works, some of which were never published. Though diffuse and obscure in style, his writings deserve attention from the learning they display and a certain originality of conception. Trained both as a lawyer and an economist, his writings bear especially on the relation between economics

and law. He devoted himself with assiduity to the theory of value, and wrote a book on the subject. He maintains that the law of value depends rigidly on supply and demand, supporting this theory with a geometrical illustration from the relative quantities of both; he combats the theory of cost of production and engaged in a controversy on this question with Melchiorre Gioja. In illustrating the theory of value he employs mathematical formulæ. These are, however, not employed as a means of investigating the phenomena of prices, but are only symbols employed to express in mathematical language economic laws already known—as MONTANARI justly said.

Molinari Valeriani's principal works are:—*Del prezzo delle cose tutte mercantili*, 1806.—*Trattato sulle misure* 1807.—*Discorsi*, 1809.—*Trattato dei cambi*, 1823.—*Saggio di erotemi di quella parte del gius delle genti e pubblico che dicesi pubblica economia*, 1827. [A. Cavazzoni Pederzini,—*Intorno alla vita, opere e dottrine di L. Molinari Valeriani*, 1859.—Montanari A., *La Matematica applicata all' economia politica da Cesare Beccaria, Guglielmo Silio, Luigi Molinari Valeriani, ed Antonio Scialoja* (always omitted), 1892.—Cossa, *Introduction to the Study of Political Economy*, 1893.] U. R.

VALES REALES. In 1780, in order to meet the debt resulting from the war between England and Spain, a loan of 148,500,000 *reales* (say £1,485,000) was contracted in Spain under the form of state notes issued under that name, bearing interest at 4 per cent per annum, redeemable within twenty years, and which were to be legal tender at all public offices. Under the pressure of circumstances their total emission attained, in 1788, the amount of 548,905,500 *reales* (£5,489,055); they were favourably received at first, but they soon lost about 22 per cent of their nominal value. The *Banco de San Carlos*, which was founded in 1782, with a capital of 300,000,000 *reales*, having redeemed a certain number of these *vales*, they rose to a slight premium. However, at the death of King Charles III. (1789), only 15,000,000 *reales* of *vales* had been withdrawn from the circulation.

[Piernas Hurtado, *Tratado de la Hacienda Pública*, vol. ii. pp. 97 and 98 (4th ed., Madrid, 1891).] E. Ca.

VALUABLE CONSIDERATION. A mere promise is not enough in English law to create a contractual obligation. In order to form a contract the promise must either be expressed in a deed under seal, or have been made for valuable consideration. Consideration has been judicially defined as either "some right, interest, profit, or benefit accruing to one party, or some forbearance, detriment, loss, or responsibility given, suffered, or undertaken by the other." It is, in fact, a *quid pro quo*. Consideration may be either a promise or an act. It must move from, *i.e.* it must be given by, the promisee. It must be of value in the eye of the law. Thus a promise to do what I am already bound in law to perform is not consideration for a promise made to me. But the value of the consideration may not admit of precise statement in money. F. C. M.

VALUE.

Value and Utility, p. 606; Total Utility, p. 606; Monopoly, p. 607; Competition, p. 607; Cost, p. 608; Value in use, p. 608; Value, Normal, p. 609; Value, Origin of, p. 609; Value, Stability of, p. 609; Value, Standard of, p. 609; Value, Subjective and Objective, p. 609; Value, Intrinsic, p. 610; Value, Feeling of, p. 610; Value, Surplus, p. 610.

VALUE. The satisfaction of the desires of human beings is conditional, in general, on the possession and use of material objects. At any rate it is convenient, for the sake of brevity, to use phrases referring in the first place to material objects, though it must be understood that the conceptions dealt with apply equally to immaterial sources of satisfaction. In virtue of the dependence of the satisfaction on the object, this object possesses value, in one of the senses in which that word is commonly used, but which may be more conveniently denominated by the word UTILITY (*q.v.*). When there is in question a class of objects possessing the quality of utility to an individual, it may happen that this individual has at his disposal so large a supply of this class of objects that no one of his desires capable of satisfaction by the use of these objects need go unsatisfied. In such a case, though deprivation of the whole supply would perhaps leave unsatisfied desires of a very urgent nature, the loss of a single one of the class of objects in question would compel, at the worst, the non-satisfaction of a desire of small, perhaps of extremely trifling, urgency; while, if the supply exceeded what the individual were inclined to utilise, the loss of any part or the whole of such excess would not involve any restriction of satisfaction. While the class of objects, viewed as a whole, would possess value, perhaps a very great value, one single object would have a very small value, or even no value at all. It is owing to the application of the same words to such different cases as here indicated, that the apparently paradoxical statement is possible that such indispensable commodities as water are devoid of value.

The relation of the two conceptions covered by the same word is not difficult to appreciate. It is expressed by saying that in the one case what is referred to is the TOTAL UTILITY of his supply of a commodity to the consumer, in the other case the marginal utility of that supply. When value is conceived of as the power of acquiring other commodities in exchange, a comparison of utilities is involved, in general of marginal utilities, namely the utility of the commodity parted with and that of the commodity acquired in exchange for it. As it is

obvious that a person parting with a portion of his supply of a given class of objects would seek to leave undisturbed the satisfaction of the more urgent of the desires whose satisfaction is dependent on the use of these objects, any restriction in his use of the objects would apply to the less urgent of the needs to which they had been, or might have been, applied. If the commodities acquired by the exchange are estimated to possess a greater utility than those parted with, there are motives urging to further exchange. When equilibrium is attained, the commodity parted with possesses less utility than that obtained in exchange, while to part with a further portion would be to sacrifice a greater utility than was gained by the acquisition of the exchange-equivalent. Thus, in the case of the exchange of goods, the marginal utilities sacrificed and acquired tend to be equalised, which is expressed by saying that the value-in-exchange of a commodity tends to equality with its marginal utility to its possessor. It is to *value-in-exchange* that reference is usually made in economic discussions when the term *value* is used without qualification. In virtue of the empirical law (see DEMAND ; LAW OF DIMINISHING UTILITY) that the marginal utility of a commodity decreases as the supply increases, the level to which the value of a commodity attains will depend on the available supply. Given the amount of the supply and the demand schedule for the commodity, the position of the marginal use and the amount of the marginal utility at once follow. But the amount of the supply is itself not independent of the value-in-exchange, since production takes place very largely for the purpose of acquiring value by means of exchange rather than of acquiring utilities for direct enjoyment. Even if an isolated individual were considered, his supplies of enjoyable commodities would be limited by the productive energy he was capable of exerting, and he would naturally distribute his efforts so as not to waste effort in realising a small satisfaction which might have been applied to better purpose. There would emerge a relation between the amount of effort applied in any given direction and the marginal utility thereby realised. So also in a developed state of society is there a relation between COST OF PRODUCTION (*q.v.*) and the value realised as the reward for incurring such cost. The most suitable mode for expressing the relation between value and cost of production will vary with the conditions of supply.

If the supply be conditioned by the existence of a MONOPOLY (*q.v.*) the exchange-value will not be necessarily in close approximation to the cost. The monopolist will seek to establish such a value-in-exchange as to give the greatest possible net excess over the cost of production. Consumers will adjust their consumption so that to each the marginal utility is brought as close as possible to that of the equivalent given in exchange, but the difference between the cost of production and the value will only be limited by the consideration that a moderate profit on a considerable turnover may be preferable to a large profit with a very small sale ; that in fact the desirable point is not a large profit on each unit of commodity unless this coincide with the largest possible profit on the whole supply.

When we pass from commodities subject to monopoly conditions to those where commercial and industrial competition modify the problem of value, the profits of producers are subjected to limiting influences. There are three cases to be considered according to the different possible conditions of supply.

(*a*) If the conditions of supply are such that the cost of production per unit is the same whatever the scale of production, the value tends constantly to the level of cost of production. These costs are to be taken so as to include cost of labour, of hire and wear and tear of capital, and of hire of business ability—in fact, all the outlay necessary that the production may be carried on continuously, without undue losses which would tend to cause production to be restricted, or such large gains as would tempt producers to expand their businesses and tempt those in other occupations to transfer their skill and capital to the one under consideration. If the value should exceed the cost as thus estimated—or as preferably it might be expressed,—if the price exceed the expenses of production, the profits of producers will be so increased that with competition free, supply will be increased, and the marginal utility being lowered with increased supply, value diminishes towards cost of production. If, on the other hand, the value fall short of the cost of production, a tendency to restrict the amount produced results, and with restricted supply, the conditions for increased marginal utility and increased value are established. If, then, competition be free and active, cost of production will measure value.

(*b*) If the supply conform to the Law of DIMINISHING RETURNS (*q.v.*) the condition for the maintenance of the supply is that the value should be sufficient to recoup the expenses of production of that part of the supply produced at the greatest expense ; the marginal cost of production becomes the measure of exchange value, the reasoning under (*a*) applying with increased force in this case in regard to the tendency of competition to bring about this result. If the demand suffice to carry off, not merely such supplies as are produced under advantageous circumstances, but also supplies produced under less favourable conditions, the control of the more favourable conditions may produce a RENT (*q.v.*) but the cost of production under these conditions does not provide the measure of exchange value.

(*c*) If the supply conform to the law of increasing returns (see INCREASING RETURNS), the relation of cost of production to value is obtained by the consideration of a *Representative Firm* (cp. Professor Marshall's *Principles of Economics*, bk. v.), a consideration useful in every case, indispensable in this. The expenses of such a firm serve as a type of the expenses necessary to be incurred in order to obtain the usual supply of the commodity. The value of its product must suffice and just suffice to cover its expenses, or changes in the volume of production will be stimulated, the consideration of which lie outside the scope of the present account of the determination of value, changes which would set up new conditions of supply and hence new determinants of value.

In all cases, then, of commodities freely and continuously produced under a *régime* of competition, the effect of competition is constantly to stimulate a rearrangement of productive effort when the value of products diverges from the standard given by cost of production. In cost of production must be included profits. The assumption of the existence of commercial competition (see COMPETITION and CUSTOM) means that capital and organising power seek always to obtain the highest reward open to them, thus tending to produce something like a uniform level of interest and of earnings of organising ability of any given grade. By assuming the existence of industrial competition, we assume that labour also seeks to find the most profitable employment open to it, and that thus there is a tendency to equality of remuneration for labour of any given degree of skill and intensity, while differences of reward are proportioned to differences in the exertion or skill demanded. By making these assumptions, it becomes possible to attach some definite meaning to the comparison of costs of production of commodities demanding widely different combinations of labour and capital and widely different qualities in the agents employed. In the case of products obtained by the members of one industrial group by exchange of their products for those of another group, when competition between the groups does not exist, whether what is lacking be one form of competition only or both varieties, the proportionality of cost of production and value has no longer the same causes in operation to maintain it. The principles in accordance with which relative values are determined in this case of non-competing groups are precisely those applicable to the case of values in INTERNATIONAL TRADE (*q.v.*). Within the limits fixed by comparative cost (see COST, COMPARATIVE AND RELATIVE) the play of reciprocal demand of the non-competing groups for one another's products determines the proportions between the values of the products produced within such a group and the values of those obtained from without by exchange. In all cases of the determination of value, the use of SUPPLY CURVES and DEMAND CURVES (*q.v.*) is a great assistance in the clear appreciation of the points involved.

The relation between cost of production and value is of such fundamental importance that it will be worth while to add a little to the above brief and slight sketch of the theory of value in order to indicate the relation of these to one another in the theory of those modern writers, among which the Austrian School occupy the most important place, who adopt the point of view made familiar in this country by JEVONS (*q.v.*) that value is dependent entirely upon utility. With this school, the value of all goods ready for consumption is given by the utility they present to consumers. The values of instrumental goods and of labour are derived from the utilities of the products in which they may be expected to result. The writers of this school thus set themselves in direct opposition to those who derive value from the labour expended in production. With the Austrians the labour has value because it can give rise to useful goods, and has value just in the proportion of its contribution towards the production of such goods. There is a sense, however, in which the value of the product is derived from the value of the means of production even in their scheme, which ordinarily inverts this order of dependence. If we suppose a case of such an instrumental good as, say, iron, which contributes to an almost endless variety of products, we may see most easily the line of thought followed. In some uses a given quantity of iron could contribute to a larger utility than in others. If its supply be so great that it exceeds what can be so used as to produce a marginal utility of, say, forty per unit, it will push its way into uses where the marginal utility realised is less, say, thirty-six per unit. What then will happen? Under free competition there cannot remain two different values for the same object, and different units of iron are perfectly capable of mutual replacement before the elaborative process begins. If the larger supply and the lower grade of usefulness are permanent phenomena, iron in its former uses cannot retain a higher level of value, and the products to which it formerly contributed a value forty will obtain a lower value, lower precisely to the extent to which the cost-good, iron, has decreased in value. In the marginal use the value of the product determines the value of the instrument; in all but the marginal use, the product derives value from the instrument value measured by the instrument's value in its marginal use. The consideration of this view is instructive, and aids in understanding the mutual relationship of marginal utility, value in exchange, and cost of production.

Value in use is what is ordinarily designated

by *Utility*, and is sufficiently defined above and under that head (cp. UTILITY).

Value, Normal.—By this term is meant the value which tends to be established under the conditions of demand and supply existing in the case to which the term is applied. It is such as might, under those conditions, be maintained unaltered, and which would, if attained under those conditions, require some external influence to operate before deviation would result.

Value, Origin of.—The question of the origin of value has been keenly disputed. There is no doubt in any reasonable mind that value cannot exist without utility. Further, utility alone is not sufficient unless *Scarcity* or *Difficulty of Attainment*, two ways of indicating the same thing, be superadded. In the cases which are most frequent of occurrence, and most interesting to investigate as a result, such scarcity is limited by the available productive powers of the person or society concerned. The investigation of the causes of relative scarcity or abundance of commodities becomes an investigation of the conditions and cost of their production. As value exists in virtue not merely of the utility but also of the scarcity of the valuable object, to assign the origin of value entirely to one or the other of these alone is to give an insufficient account of such origin. Neither utility without scarcity nor scarcity without utility is sufficient to endow an object with value, but the two in combination. Scarcity here means merely such a degree of scarcity as leaves unsatisfied some wants to which objects like the valuable object which is in question could minister. These wants, which remain without satisfaction, may or may not be urgent. The existence of some such, which, with a larger supply of the commodity at the disposal of the person feeling the want, might be satisfied, is all that is implied by saying that there is scarcity.

Value, Stability of.—The value of a commodity is, as the preceding discussion shows, a relative term. It is great or small according to the relation existing between the wants which the said commodity could satisfy and the means available for satisfying such wants in addition to the commodity itself. In the sense of value-in-exchange, the value of the commodity is equally relative to the extent of want and the extent of the available means of satisfaction. The wants in question are now conceived of, not as those which can be directly satisfied by the consumption or use of the commodity, but such as might be satisfied by any of the indefinitely numerous kinds of commodity which might be obtained in exchange for it, in such quantity as its value enables them to be procured.

The value of the commodity may be said to be stable if, either by itself or by what can be procured in exchange for it, it can afford a utility which remains the same from one time to another. Stability of value, in the sense of stability of exchange-value, is generally meant to imply merely the capacity for procuring in exchange equal quantities of some one other commodity, or of other commodities in general. This last expression acquires definiteness through the calculation of INDEX-NUMBERS which are devised to procure a measure of the stability of value of money and hence of any commodity whose money-value is ascertained.

Value, Standard of.—In comparing the values of different commodities, recourse is generally had to the expression of the value of each in terms of some one commodity chosen as a "standard of reference." This one commodity serves as a value-measurer, the value of any particular commodity being expressed by stating the quantity of the "standard" whose value is equal to that of some definite amount of the particular commodity; as when wheat is quoted at 45s. per quarter, the value of one quarter of wheat is stated as equal to the value of 45s. If we regard money simply as an instrument of exchange, this means an equality in value with whatever commodities 45s. will purchase. This reference of all values to one standard is especially convenient, and not only so, but necessary, when the values in question are values to different persons. These, though in themselves incommensurable, are brought to a possibility of comparison by the expression of each value in terms of the value of a definite quantity of the standard. The various quantities of the standard which serve as measures of the values of many commodities to many persons are directly comparable, and thus a comparison of wants which is indispensable to enable trade to be developed is rendered not only possible but easy. It is very obvious that stability of value is a highly desirable quality in the standard. The precious metals possess many qualities rendering them suitable for use as standards of value, including a very considerable degree of stability of value. For particular purposes various writers have proposed to use corn or labour as a standard, and a composite standard arrived at by determining the average changes in money-value of numerous representative commodities is presented in various index-numbers. These may enable far better comparisons of values to be made over considerable periods of time than is possible by the simple comparison of money-values, and are constantly so used. The introduction of such a standard for common commercial use is, however, beset with many difficulties in addition to those which attend a satisfactory determination for historical purposes (see also STANDARD OF VALUE).

Value, Subjective and Objective.—The subjective value of a commodity is the importance which the commodity is considered to possess with reference to the satisfaction of desires

felt by a person; also called *personal* value. The objective value of a commodity is its capacity for producing some objective effect. The most important kind of objective value is objective exchange value, or the power a commodity possesses to procure some other commodity or commodities in exchange for itself.

Value, Intrinsic.—There is a constant tendency to use the term value as if it implied some inherent property of the object to which it is applied. Bread, for instance, is supposed by some to possess an intrinsic value in virtue of its power to satisfy hunger. Such power, however, presupposes that the hunger exists. In view of the constant recurrence of hunger this seems a reasonable supposition, but if the supply of bread were renewed as frequently as hunger recurred, and in quantity more than sufficient to satisfy the hunger, some part of such supply would possess but slight, if any, value. The illustration may serve to indicate that value is not inherent in an object, but depends on the relation of the object to unsatisfied needs. This phrase 'intrinsic value' is also used sometimes to indicate such a distinction as that between the face value of a token coin and the value of the metal of which it is made, the latter being referred to as the intrinsic value of the coin. In these cases the desired distinction can probably be made more clearly by the use of other phrases (see also INTRINSIC VALUE).

Value, Feeling of.—An expression related to the conception of personal or subjective value.

Value, Surplus.—Karl MARX (*q.v.*) in his theory of value adopts the view that value is wholly caused by cost of production, and that the necessary labour expended in that production is the only element which can impart value to the product. He asserts that, the value being determined by the amount of such necessary labour, the capitalist employer compels extra labour to be performed by the labourer while not increasing the recompense paid to the labourer. The extra product thus obtained is conceived of as being valued at the same rate as the other portion of the produce, and its value is denominated "surplus value." From such "surplus value" the payment of interest and profits is conceived to be made.

[All systematic treatises on economics contain of necessity a discussion of so fundamental a part of economic theory as the doctrine of value. No special reference need therefore be made, except to the exponents of the Austrian views. Menger, *Grundsätze der Volkswirthschaftslehre.*—Böhm-Bawerk, *Grundzüge der Theorie des wirthschaftlichen Güterwerths* in Conrad's *Jahrbücher*, 1886; comp. the same author's *Karl Marx and the close of his system*, translated. Fisher Unwin, 1898.—Wieser, *Der natürliche Werth*, besides other works referred to in an article in the *Economic Journal*, No. 1, March 1891, by Professor Wieser.—See also AUSTRIAN SCHOOL; PROGRESS, INFLUENCE OF, ON VALUE.] A. W. F.

VALUE, MEASURE OF. See VALUE, STANDARD OF.

VALUES, OFFICIAL. See OFFICIAL VALUES.

VAN HALL, FLORIS ADRIAN (1791-1866), an able Dutch statesman and financier, who distinguished himself principally by his action as minister of finance in re-establishing the disturbed credit of the state on a firm basis. As, in consequence of reckless and wasteful administration of the finances, the bankruptcy of the state was imminent, Van Hall carried, in 1844, notwithstanding a very sharp opposition, an act of the legislature for a voluntary loan of about £10,500,000, or, as an alternative if that loan were not fully subscribed, an extraordinary property and income tax of nearly £3,000,000. Fortunately the loan was subscribed, and the conversion of the 4½ and 5 per cent debt into a 4 per cent loan followed, causing an economy of about £300,000 a year. These measures, together with the very considerable contributions of the Dutch Indian possessions, re-established the equilibrium of the finances.

To bring the monetary system of the kingdom into accordance with that of most civilised countries, who at that time employed the single silver standard, or at least used silver only, Van Hall put an end to the free coinage of gold, and replaced the double standard in 1847 by the single silver standard. He also promoted a revision of the tariff and navigation acts, and took, after his resignation, an active part in parliament as leader of the conservative party in the revision of the constitution, 1848.

Van Hall was again minister of finance in 1858, and carried a railway act prescribing the construction by the state of railways on a rather large scale; he then retired from public life.

Van Hall wrote: *Lofrede op Johann de Witt* (1819).—*Onpartijdige beschouwing van den toestand des koophandels binnen de Vereenigde Nederlanden* (1820).—*Lettre d'un Hollandais indépendant à Lord Grey* (1833).—*Proeve van een onderzoek omtrent de schuld van het Koninkrijk der Nederlanden* (1840). C. A. V. S.

VANDELEUR, J. S. See CO-OPERATIVE FARMING, AND OWEN, ROBERT.

VANDERLINT, JACOB, a Dutch merchant. Author of a notable work published in London, 1734, under the title: *Money answers all things: An Essay to make Money sufficiently plentiful amongst all Ranks of People and increase our foreign and domestick Trade, fill the empty house with inhabitants, encourage the Marriage State, lessen the number of Haukers and Pedlars, and in a great measure prevent giving long Credit and making bad debts in trade; Likewise showing the Absurdity of going to war about trade, and the most likely Method to prevent the clandestine exportation of our Wool, and also to reduce the National Debt and ease Taxes.* Influenced by LOCKE, he in his turn was studied by the PHYSIOCRATS, and may be said to have initiated scientific socialism in England. The head title of his book

(*v. Ecclesiastes*, x. 19) is no doubt suggested by Locke's use of it in *Some Considerations* . . . [on] . . . *Interest.* The little work pretends, in addition to its lengthy titular programme, to give "an evident and clear account of the foundations of the trade of the world." Its actual contents are mainly suggestions in outline, having little to do with currency, but making for a better distribution of property and the amelioration of the lower and middle classes. Vanderlint has, it is true, a "quantity" theory (*Prin.* iv.) and faith in the favourable effect of plenty of money on trade (*Prin.* viii.), but he quickly passes on to his main topics:—the desirability of increase in the national output of raw produce, and of increased and more widely diffused consumption. To effect this more land should be enclosed, with due regard to common rights, and more cultivators attracted to it. The latter would multiply if all taxes on commodities were removed. There would then be more consumption, more raw material produced, more demand for land. By the rise in rents that would ensue the landowner might be made the sole tax-payer. Increase of consumption would give luxury its "natural and proper bounds," luxury being the effect of decay of trade and not its cause. For, decay of trade leaving the comparative few in ever greater affluence, the relatively poor majority run to over-extravagance, *i.e.* luxury, in emulating their "magnificent living."

Trade, he held, should be "unrestrained," all prohibitions cutting off so much employment. Nations should develop the production of "commodities peculiar to them" as "a foundation of commerce, and by the quantity and quality of such produce be able to defy rival imports without protective legislation. Yet "every nation ought to keep trade on such foot as always on the whole to have the balance in their favour." Further points of interest are Vanderlint's theory of wages as determined by the price of necessaries, of population, and of the duty of collective afforestation.

Vanderlint's anticipations of socialism may be sought in his conviction that the hardships of the poor were unnecessary and remediable by wise and just measures, in his advocating the theory of the natural right of every man to sufficient land to enable him to live and support a family, and in his recommendation that new enclosures should be made and owned by communal authority, not by individuals. As if anticipating Rousseau, he held that, whereas a state of civil government with wealth adequately diffused was far preferable to a state of nature, yet "if the bulk of mankind be made miserable by the oppression of the rest, as they undoubtedly are . . . such an unhappy state . . . is worse than a state of nature itself."

[See Cossa, *Introd. to Pol. Ec.*, Eng. trans., Macmillan, 1893, p. 245, as to Vanderlint's views on the SINGLE TAX.] C. A. F.

VANDERMONDE, ALEXANDRE THÉOPHILE (1735-1796), was born and died at Paris. A very distinguished geometrician, he was admitted to the *Académie des Sciences* in 1771, and from the date of the institution of the *Conservatoire des arts et métiers*, he was appointed director by the decree of 10th October 1794.

When the normal school was established by the convention, under the decree of 30th October 1794, its scholars being 1500 young men, aged at least twenty-one, drawn from all parts of France, Vandermonde was appointed to teach political economy. This mathematician performed his task with remarkable skill, especially considering his date.

The closing of the school, 19th May 1795—it had been only opened 20th January of the same year—unfortunately only allowed Vandermonde to give eight lectures; these have been published under the title of *Séances des écoles normales receuillies par des sténographes et revues par les professeurs*, 1e *partie* (5 vols. 8vo). These lectures bear evidence of a mind singularly well adapted to the study of economic science.

In the *Journal des économistes*, December 1873, M. Henri Baudrillart supplied a critical epitome of the lectures in which he expressed his regret at their curtailemnt and the premature death of the professor. The chair of political economy he held was the earliest established in France. A. C. f.

VANSITTART, NICHOLAS, LORD BEXLEY (1766-1851), son of Henry Vansittart, sometime governor of Bengal, took his M.A. degree at Oxford in 1791, and was called to the bar at Lincoln's Inn, where he became a bencher in 1812. He was M.P. for Hastings in 1796, and in 1801 was sent as minister plenipotentiary with Parker and Nelson to Copenhagen to endeavour to detach Denmark from the Northern Alliance. In April 1801 he was appointed joint-secretary to the treasury by Addington.

Between 1802 and 1812 he sat for Old Sarum, and afterwards for Harwich. In 1804 he was a lord of the treasury in Ireland and in the following year secretary to the lord lieutenant. He was reappointed joint-secretary to the treasury, 1806-7, under Grenville's administration; and in 1812 became a cabinet minister, succeeding Perceval as chancellor of the exchequer. He held this office during Lord Liverpool's administration until January 1823, when he retired, and was raised to the peerage. He remained in the cabinet as chancellor of the duchy of Lancaster until 1828. He died 8th February 1851, in his 85th year.

Vansittart was a poor debater, with feeble voice and indistinct utterance, but he at one time had a certain financial reputation, and his gentle manners and benevolent character secured the attention which his natural abilities were unable to command. The eleven years during which he was chancellor of the exchequer were from a financial point of view perhaps the most critical England ever saw, but Vansittart never showed dexterity either in imposing or in remitting taxation. He introduced no measure of first importance. He was not responsible for the repeal of the income tax in 1816, the surrendering of the war malt tax, nor the return to cash payments. His resolutions on the report of the BULLION COMMITTEE have not added to his fame, and a praiseworthy scheme for

converting the navy five per cents to four per cents in 1822 was coupled with an objectionable proposal to farm the pensions known as the "dead weight annuity." He introduced alterations into the SINKING FUND (*q.v.*) far from successful. He was simply an honest and industrious clerk, finally dismissed from his office with little ceremony.

Reflections on the Propriety of an Immediate Conclusion of Peace, London, 1793, 8vo (well-written defence of the war as regards its effects upon public prosperity).—*A reply to the Letter addressed to Mr. Pitt by Jasper Wilson*, 1794, 8vo.—*Letter to Mr. Pitt on the conduct of the Bank Directors*, 1796, 8vo.—*Inquiry into the state of the Finances of Great Britain in answer to Mr. Morgan's facts*, 1796, 8vo (the last three are in defence of Pitt).—*Substance of two Speeches, 7th and 13th May 1811, in Committee of the Whole House on the Bullion Committee Report*, 1811, 8vo.—*Outlines of a plan of Finance proposed to be submitted to Parliament*, 1813, 8vo (the "Sinking Fund"; repr. in the *Pamphleteer*, i. 255; discussed by F. Silver, *ib.* ii. 313-321).—*Substance of Speech comprising the Finance Resolutions for 1819*, 1819, 8vo (*ib.* xv. pp. 15-26).

[*Gent. Mag.*, April 1851, p. 431-432 and frequent references in Ricardo's letters.—*Annual Register*, 1851.—Ld. Colchester's *Diary*, 1861, 3 vols.—Sir S. Walpole's *History of England from 1815*, 1878-86, 5 vols. 8vo.] H. R. T.

VARRO, M. TERENTIUS (B.C. 116-28). He fought in the wars against Mithridates and afterwards under Pompeius. After Pharsalia he was pardoned by Cæsar and employed by him in collecting a library for public use. He was reputed the most learned of the Romans, and was the author of 490 books. Except mere fragments, his treatises *De Lingua Latina* (imperfect) and *De Re Rustica* alone remain. The latter is a work of a very practical nature, giving directions for farming which are so clear and comprehensive as to show that Varro wrote from actual experience. In the first book he deals with the art of cultivation; its instruments and methods; the proper seasons for operations; the culture of vines, olives, and other crops; and the slave or animal labour employed. In the second book he treats of the peasantry (c. x.) and of the larger animals, of wool and other produce. Of the third book the chief subjects are fowls, pigeons, peacocks, fish-ponds, and game.

[The text is given in a convenient form by H. Keil's edition, Leipzig (B. G. Teubner), 1889.—C. T. Cruttwell, *Hist. of Roman Lit.*] R. H.

VASCO, GIOVAN BATTISTA (1733-1796), born at Turin, was a priest and doctor of law; he taught theology at the university of Cagliari for some time, and also cultivated natural science and political economy. He was continuously persecuted for his liberal ideas, and died in great poverty. He left several works on economic subjects, the most important being one on corporations and another on begging.

In the first, written for the prize competition at the Academy of Verona (see MARACHIO), Vasco advocates the utmost economic liberty and the dissolution of trade-gilds, quoting TURGOT and A. SMITH. Vasco studies, from a liberal-minded point of view, the evils arising from the regulation of occupations, and shows that governments can, even without the existence of trade-gilds, prevent certain disadvantages which may arise from freedom in these matters; he advocates absolute liberty in agriculture, manufacture, and trade. The writings of Vasco are profound and clear, and, though he adheres to the doctrines of the well-known economists of his day, his observations have a practical basis.

Vasco's book on mendicants is also noteworthy considering when it was written. In it he studies the causes of begging, and makes practical suggestions for simplifying the relief system for those incapable of work, and eliminating the causes which leave capable men unemployed and a burden on public charities. The remedies Vasco proposes, though they have the merit of simplicity, were not adequate even for his own time, far less so for the present day.

[*Delle università di arti e mestieri*, 1793.—*Mémoire sur les causes de la mendicité et sur les moyens de la supprimer*, 1790 (in Custodi's collection). [Alberti, *Le corporazioni d'arti e mestieri, etc.*, 1888.—Balletti, *L'abate Giuseppe Ferrari Bonini e le riforme civili della beneficenza nel secolo XVIII.*, 1886).] U. R.

VAUBAN, SEBASTIAN LE PRESTRE, Seigneur de, Maréchal de France (1633-1707). One would hardly expect a distinguished general to rank among the economists of his time. Such, however, is the place in history of Vauban, the celebrated marshal of France, who, after besieging fifty fortified places and receiving eight wounds, found leisure to write *La Dîme Royale* (1707), an erudite economic work much in advance of his time, and distinguished both by accuracy of method and breadth of view.

Though the book was published anonymously, and only a few copies issued, Vauban had to submit to the mortification of seeing it "pilloried" by the parliament, while he himself incurred the displeasure of the king. A few weeks later he died. The book contained no subversive doctrines. It is only a plan for financial reform, and aims at substituting for every other impost a proportional tax on every description of income:—on income derived from landed property (which should be levied on the raw produce, as was the case of ecclesiastical tithe), on income from house property, profits arising from manufactures and business, salaries and pensions of officials, government stocks, and also the wages of artisans and labourers,—in short, a kind of income tax. The amount to be raised by this tax, like the income tax, should vary according to the requirements of the treasury. Vauban considered that 10 per cent should be the maximum, never to be exceeded, and proposed 6·66 per cent as a normal rate. On the wages of artizans and labourers he would only demand, on account of the frequency of slack seasons against which they find it difficult to bear up, a rate of 3·33 per cent—"subject to being doubled in case of great necessity of the state."

To this tax Vauban added others which bore rather on expenditure than on income (though the distinction never seems to have been clear in his mind), for instance, on luxuries, servants, "exaggerated magnificence in furniture, gilded carriages, large and ridiculous perruques," and even "on swords worn by those who were neither nobles nor soldiers." He also proposed a tax on each hogshead of wine drunk at a tavern, though not on wine drunk at home, so as a little to check the expenses of the peasants who on Sundays and fête-days spend their time in taverns, and "to oblige the more steady of them to stay at home."

All this, according to the estimate of the author, who calculated each category of taxes with all the accuracy possible at the time when he lived, should supply 116,822,500 livres (French), a revenue sufficient, he thought, for public requirements, while in time of war it might at a moment's notice be raised by 2 or 3 tenths.

The value of Vauban's book lies not so much in his plans of financial reform—though, considering his period, they are remarkable—as in the mass of facts, figures, and observations of all kinds. These, as he said himself, are the outcome "not of imaginary observations and guess-work, but of exact investigation and careful statistical enquiry," which render the book a document essential to understanding the economic history of France. In it abuses of all kinds are denounced with a boldness which sufficiently explains the anger it excited among all those who benefited by these abuses. Passages such as the following would obviously not find favour with a king like Louis XIV.:—"If the people were not oppressed so severely they would marry more freely; they would be better clothed and better fed; they would work with more vigour and heart if they saw that they retained the main part of their gains. No better service can be done to monarchs than to remind them continually of this truth."

To Vauban's honour, he was one of those few at the court of Louis XIV. who protested against the revocation of the Edict of Nantes. He did this by a memorandum in which, with remarkable clearness, he called attention to the economic effects which would result from this measure to the injury of France and to the advantage of foreign countries. C. G.

VAUGHAN, RICE (17th century), son of Henry Vaughan of Machenlleth, Montgomeryshire, barrister since 1638 of Gray's Inn, registrar of the sequestration commission which sat 1643-60, prothonotary (1653), and judge-assistant (1659) in North Wales, and imprisoned for high treason "without pen and ink" 1665 *et seq.*—wrote (1635?) *A Discourse of Coin and Coinage*, pub. 1675, posthumously, by Henry Vaughan (the poet?), and reprinted by M'Culloch (1856) in *A Select Collection of Tracts on Money*, which is the first historical monograph in English on money. He knows that money means general purchasing power, it is "a pledge," "it serves actually to no use almost—potentially to all uses," and is the medium of exchange and measure of value, "either the thing is exchanged for money or if it be exchanged for another thing, the measure of that exchange is how much money either of the things exchanged is conceived to be worth," and should be of value, not common, easily stamped, and divisible, durable, and generally acceptable (he should have added portable). As for value "Use and delight, or the opinion of them, are the true causes why all things have a value" (value in use), "but the proportion of that value . . . is wholly governed by "rarity and abundance" (value in exchange) and therefore "must needs differ in several times and places," and he defines the "intrinsic" value of coin as its "proportion to other things valued by them." Doubtless he should, like W. POTTER (1650), have added after "abundance," "mobility"; and HOBBES's (1651) definition of the function of money is more clearly expressed; and his arguments against "raising" the denomination of "money," and against the par of exchange, came from MISSELDEN (1622); but he avoided the error which tainted even Misselden and MUN (1621), that raising money attracted the precious metals (pp. 77-86), substituting the truth that raising silver without raising gold money will attract silver (p. 88). He does not discuss companies, banks, usury, nor those physiological metaphors about money which Hobbes derived from MILLES, Misselden, etc.

The book on coin was written while Charles I., Louis XIII., and Ferdinand II. (p. 118) reigned, and before certain Dutch and French proclamations (p. 19) were repealed; *i.e.* between 1625 and 1636. In *Plea for the Common Laws* (1651), he opposed Hugh Peters's plan of law reform, and in *Certain Proposals* (1652), made unimportant counter-proposals; his *Practica Walliae*, published (1672) posthumously by T. M. (Manley?), is merely professional; and his *Manner of the Proceedings in the Courts of Great Sessions in . . . North Wales* (1653) is the first chapter of it. J. D. R.

VAUGHAN, ROBERT, D.D. (1795-1868), congregationalist minister at Worcester, 1819, and Kensington, 1825-43, historical professor of University College, London, 1830-43, principal and theological professor of the Lancashire Independent College, 1843-57, founder and editor of the *British Quarterly*, 1845-66:

Wrote several English histories of fair merit in which he usually set apart chapters on "Social history," which he called "a species of science." His one work on social philosophy, *The Age of Great Cities: or Modern Society viewed in its Relation to Intelligence, Morals, and Religion* (1843), illustrates the thesis that politics, science, and literature are derived from "the state of society" in any epoch, and that our society is essentially civic, with happy quotations from Samuel LAING and Harriet MARTINEAU, with an able argument that the dangers of town life are often exaggerated, and always outweighed by its superior opportunities for good; and with the following epigram in answer

to those who condemned factory labour as making men's work less skilled and their minds less intelligent. "Education," he wrote, "comes not from the structure of a loom but from the texture of society." This thesis is also the hypothesis of moral statisticians, to whom, however, Vaughan does not refer. The self-educated man reveals himself in his exaggeration of the effects of town life, an exaggeration which sometimes leads to a confusion of commercial, civic, and social influences, sometimes to such an assertion as this, that the eddas and sagas "hardly deserve a place in the history of literature" (p. 137).

[Landor mentions his eloquence—*Imag. Conv.*, ed. Crump, vol. vi. p. 397; Coleridge his *Wycliffe—Table Talk*, ed. Bohn, p. 223; M'Culloch his *Age of Great Cities—Lit. of Pol. Ec.*, p. 356. In the last century R. PRICE had attacked towns as the "graves of mankind," and YOUNG defended them as an "Euthanasia." Vaughan's book was a *coup de grace* to these writers.] J. D. R.

VAUVENARGUES, LUC DE CLAPIERS, Marquis de (1715-1747), was compelled, through bad health, to leave the army in 1744, and lingered on a few years, bearing this trial with equanimity, and finding a solace in the composition of his works.

He has been called a modern stoic, and was a critical and refined moralist, opposed equally to extreme austerity and self-indulgence. Those writings of his which require notice here are his *Discours sur l'inégalite des Richesses;* this inequality arises, as he shows, from natural causes. In ch. xliii. (*Du Bien et du Mal Moral*) of his *Introduction à la Connaissance de l'Esprit Humain* he demonstrates that vices never tend to the public good, refuting thus Mandeville's *Fable of the Bees*, which, however, he does not appear to have known. His often-quoted maxim (No. 310 of the collection), *Le Commerce est l'école de la tromperie*, shows a curious coincidence of opinion between a highly polished gentleman of the 18th century and the ascetic ecclesiastics of the middle ages, who held that *Contrahentibus naturale est se invicem decipere* (in bargains people naturally deceive each other).

E. CA.

VAVASSEUR. SERFDOM became extinct very early in Normandy, and from the 11th century onwards the rural population was divided between freemen (*franci*) and peasants (*rustici*). Many of the freemen were called *Vavassores;* they held land of a lord to whom they paid a rent and RELIEF on entry into possession; they were obliged to be present at his pleas, had to plough a portion of his lands, and to provide him with a horse for his cartage. But in many respects their position was distinguished. Thus in the 13th century they sometimes presented the parson of the parish; in certain fiefs (see MANOR) they were entitled to take wood or feed their cattle in the lord's forests. The *vavasseurs* of the bishop of Bayeux owed military service on horseback, armed with a lance, a shield, and a sword; elsewhere we hear of *vavassores pedites*. In old texts a *vavassorium* is carefully distinguished from a tenure in villenage and a *bordagium*. Still being a non-noble tenure, it could be divided between a great number of owners, but the lord was supposed to deal only with one of them, who collected the rents and was responsible for the rest. This tenant, being supposed to be the eldest of the various sons of one former owner, was called *l'aîné:* hence the name of *aînesses* also given to these holdings (see SERVICES, PREDIAL AND MILITARY).

[Léopold Delisle, *Études sur la Condition de la classe agricole en Normandie au Moyen Age*, Evreux, 1851, pp. 6-7 and 32.] E. CA.

VECTIGALES AGRI signifies land let out by a municipality for a long or indefinite period, subject to the payment of a yearly rent (*vectigal*). The lessee of such land, as long as he paid his rent, had the rights of an owner over it, though the municipality was considered in law to be the owner. An analogous tenure arose in respect of waste lands of the imperial demesne, which were let out on long lease for the purpose of being planted (*agri emphyteuticarii*). From this latter custom the term *emphyteusis* (inplanting) was used to signify a long or perpetual lease, by which the tenant (*emphyteuta*), who fulfilled its conditions, was in the position of a freeholder. Under Constantine and his successors *agri vectigales* disappeared, becoming in most cases imperial or ecclesiastical property, hence they are not mentioned in the Theodosian code, or in the *Corpus Juris* of Justinian.

E. A. W.

VELLON. In the old Spanish monetary system this word is used very much in the same way as our "sterling," to denote the standard money of the day. It was attached either to the word "plata" or to "real," *i.e. plata da vellon* or *real da vellon*. Which of these came first in time it is difficult to say. Barcia defines it as "ordinary copper money." The expression is thought to be derived either from *villon* or *vilis*, base; or from the sheep (*vellon*, fleece) which was stamped on certain old Roman coins. Barcia, with much probability, refers it to the same root as *French* "BILLON," *Ital.* "*biglione*," *Eng.* "BULLION," with derivation from "bulla," a round piece and so a coin.

[Barcia's *Diccionario de la lengua Española.*—Zarolo's *Dicc. Encycl. de la lengua Castellana, s.v. Real*-Vellon. For the use of the term in currency, see Kelly's *Cambist*, p. 317.] C. A. H.

VEND, NEWCASTLE (1602-1844). The received view that "there is no direct or indirect connection between the ancient and modern forms of trade combination" is contradicted by this "vend," which was once the attribute of a gild (see GILDS), then of a cross between gild and RING, then of a ring; which afterwards inspired simultaneous attempts to renovate the gild and invent TRUSTS, and which now influences the policy of TRADES-UNIONS. The history of this missing link is in its earliest

stages difficult, and has not been told; it will therefore be told at length.

Preface.—In 1600 the Newcastle hostmen were formally incorporated as a gild of exclusive coal-fitters for the north of England; "fitting" was defined by the charter (Brand, *Hist. of Newcastle*, ii. 623-627, 659) as "loading and unloading," but was universally construed as "selling for export" (21 Jac. c. 3, § 12; *Cal. State Papers, Dom. Ser.*, 1655-56, p. 280). But "hostmen" and "coal-fitters" were not synonymous; thus we read in 1633 of "hostmen's fitters," and in 1700 of hostmen regulating fitters' charges (M. A. Richardson, *Newcastle Reprints, Historical*, vol. iii. *Conservatorship of the Tyne*, p. 81; Brand, ii. 302 n.). A double process was going on. On the one hand, hostmen were expanding (1600-1750) until they embraced nearly all free burgesses, and their significance evaporated; on the other hand, a nucleus of hostmen, described by foes as eighteen or twenty, and by friends as over thirty, and five of whose names have survived (Record Office, *State Papers, Domestic, Elisabeth*, vol. 263, No. 72; par. 3), were accused in 1590 and 1597 of having converted to their private use collieries leased to the hostmen at large, and of engrossing "all other collieries" (*ib.* Brand, ii. 269), and, in 1653, of making efforts to retain their monopoly of "leases of the coal-pits" (*Conservatorship*, p. 26). The fact that certain hostmen were lessees of the Gateshead and Whickham (1590?-1681), and of valuable Newcastle collieries (*ib.* pp. 59, 85; *New. Rep., Miscellaneous, Certain Matters*, pp. 9, 10), and that sometimes coal-owners (1610), sometimes hostmen, were accused of raising the price of London coal, lends colour to the charge. But the matter does not rest here. These owner-fitters have told us themselves how from the first they usurped the power and, probably, the property of the fitters' gild.

First Period of its History (1602-1768).—The hostmen's gildbook for 1602 contains an "order and agreement of partnership for the vente of coals" by twenty-nine or (counting joint-owners as one) twenty-four hostmen. Their names include the five mentioned in 1597; and they were a majority and commanded the gild, which in 1600 numbered forty-eight. The twenty-four are ranged in four groups; each member of each group may only separately sell so many "tens" of coal, the highest exceeding the lowest quantity, as nine to one. This compromise between partnership and severalty suggests the COST-BOOK company, a tenure which still exists among mining adventurers. Moreover it was usual in the next century for Northumbrian mining adventurers to club together like one of these groups, ear-marking and apportioning to each member such and such quantities of coal when sold by their fitter-agent each week (J. Bell, *Collieries and Coal Trade*, vol. i., a MS. in the Royal Geological Museum, see esp. "Washington Colliery"). Further, people only spoke of "tens" in reference to their own mine, for the "ten" was a private measure varying in each mine. We infer then that the hostmen (or some of them) owned twenty-four collieries, and resolved that they should be worked for "fitting" purposes as one company, by this same nucleus, each for his private use if his "fitting" did not exceed his allotted share. The second document is an agreement of two terms made in 1665 "at a meeting of the several principle traders in coals"—so that the gild is there, but unofficially. The first term, signed by twenty-one coal-owners—six of whose names figured in the document of 1602—and by one agent for one of the twenty-one, bound the signatory to close his colliery until the end of the third quarter or thereabouts; one quarter-group must have held aloof from this term. The second term signed by seventeen out of the twenty-one, and by eight others, bound the signatory to raise the price of his coal. Briefly, the twenty-nine coal-owning hostmen of 1602 have been transformed into twenty-nine coal-owners, many of them hostmen. A fluctuating body, held together by what was then thought the frail thread of self-interest, has been substituted for the organic cohesion of the gild. The third document, dated 1768, states the "intended" annual vend of twenty-four collieries for seven years to come, and was perhaps a response to the fitters' lists required by the Septennial Act of 1766 for regulating the Newcastle coal trade. Words of agreement are avoided, as such an agreement would be a crime under 9 Anne c. 28. The ratios of the quantities allotted vary as widely as ten to one. Gild hostmen and fitters, who were then mere agents, have all finally vanished. The singular similarity between these three shreds of evidence seems to prove that a sub-gild—if it may be so called—of coal-owners had detached itself from the doomed and decadent parent gild of owner-fitters, and exercised until 1768 such functions of its parent as concerned coal-owners. If this view is true, those functions—in other words, the vend—comprised the following features, some of which were expressed, and others implied:—

(1) It was a partnership composed of members, who, if they traded beyond a certain point traded as partners, but if they traded up to that point, they traded as though they were private traders and not partners; for this purpose (2) it limited the annual output (3) which it distributed among the collieries in certain proportions. Briefly, it was what 17th century writers called a STINT. Stints were usually annual, and were meant to secure (4) fixed prices. Prices were also directly fixed by the vend of 1665, and before then by the gild (*Cal. State Papers, Dom. Ser.*, 1655-56, p. 280) or by its "pricers" (*Conservatorship*, pp. 32, 65; cp. Surtees Society, *Newcastle Merchant Adventurers*, i. 52); and the act of 1766 assumed that the sellers fixed the "usual prices" of coal; and the coal (5) was put (in 1602) into three classes. So much for the express features; the implied features were as follows: (6) it was a condition of the charter of 1600 that the hostmen should sell direct to shipowners (R. Gardiner, *England's Grievance*, 1655, ch. ix.), and the act of 1766 assumed that the latter had a right of purchase on tendering "the usual price." (7) Labourers were at that date called "servants," and were hired gild fashion, *i.e.* by the year and by indenture, providing for payment by piecework and during suspension of work, for exclusive service, and for penalties which the magistrates enforced (5 Eliz. c. 4, § 7;

J. Bell, *l.c.*). However much the gild ministered to the interests of a class of capitalists, it was true to its ideal of organising industry all round. (8) Nor could it legislate for capitalists or producers as such, but only in so far as they were urban traders of a special kind. Therefore this stint being invented by fitters for fitters could not affect inland trade nor coals consumed at Newcastle. And further the hostmen granted, as the consideration for their charter, a duty on coal exported from the Tyne "to the free people of England," and "spente within this realm and not transported" (R. Gardiner, *l.c.*; Brand, ii. 658); probably, therefore, the grant to them was from the first construed as co-extensive with the grant by them, and they did not regulate "transported" coal. (9) The usual remedies of the decadent gild were fines, boycotting, and warnings.

These features must have characterised the vend of 1602. Their co-existence in the vend of 1768, and persistence during the intermediate period, is inferred from the fact that they were all present when the vend was put under the microscope in the second period of its history. Granted that the second, third, fourth, and ninth features might have often died and been born again, and that the fifth and seventh might have lived on in isolation, it is inconceivable that the first, sixth, and eighth could have existed by themselves, or could have been revived if they had been once suffered to lapse for any length of time at any date after the great rebellion. The theory of survival gives the only possible solution; and survival means an uninterrupted existence from the time when the things surviving had a meaning—namely, from the first half of the 17th century. But we are anticipating.

The second period of its history (1771-1844) is a replica of the first period; each of these nine features recur, but with differences due to an age of movement. London had tapped new sources of supply, and the margin within which the northern coal-owners could dictate terms grew narrower day by day. And there were foes from within. Thus Sunderland, which used Newcastle as its port in 1704 (Brand, ii. 677), soon became independent, but federated with Newcastle in 1771; and the railway of 1825 gave a new outlet to the Tees-side collieries, only some of which joined the confederacy in 1834. Again, the Tyneside collieries, which were of the traditional number (twenty-four) in 1768, were twenty-nine in 1787 (Brand, ii. 688), and forty-two in 1829 (*Rep.* (1830), vol. viii. p. 316), and although their respective quantities and prices were assigned to each colliery every year 1786-1833, and the "rules" and "agreement" of 1833-34 were elastic as well as permanent, and admitted readjustments from time to time, there were always one or two dissenters. Again, for some years before 1786, and afterwards for parts of years, corporate trading broke down and competition came romping in. It was an age of intermittent individualism. Ideas had also moved, and the coal-owners forgot their origin in the gild, and passed themselves off as a ring. This gild-ring—if it may be called so—was investigated by at least five committees in 1800, 1830 (*bis*), 1836, 1837-38, yet the word gild was never whispered by one committeeman nor by one witness; all accepted as history the legend that before 1771 there was competition, and then for the first time the coal-owners combined in order to defeat the rings on the London market—yet the coal-owners revived these very rings after their abolition in 1831! Truly, the industrial revolution had, in twenty-nine years (1771-1800), swept men's memories clean, and turned their minds topsy-turvy. Lastly, these dupes of a legend invented apologies which are of unique interest as made by men to whom economic history before 1771 was a blank.

As to (2) and (3), the apologists said that the agreement did not create a MONOPOLY (*Rep.* (1836), p. 12, and that the appointed annual totals exceeded the demand, and therefore were hypothetical figures for calculating proportions, and giving the weak a chance of sharing with the strong; yet many of the collieries worked half (*Rep.* (1830), pp. 267, 301) or one-third (*Rep.* (1836), vol. xi. pp. xv., 80) power under the vend, and the so-called weak often fared best when the vend was off (*Rep.* (1836), pp. 11, 24). Even thus Wheeler (1601) wrote of the stint, that it was not a monopoly, and that it was double of the supply (he was defending traders against producers, not producers against consumers), and therefore operated only as an "economical apportioning among the brethren of the companie of the . . . benefits of the same, so that the wealthier sort . . . are kept from engrossing the whole trade." As for (4), "regulation" or "order" kept prices stable (this was disproved in *Rep.* (1871), vol. xviii.; *Rep. E.*, App., p. 208), and was more "economical" than the "open" or "fighting" system which produced the same result at the cost of "confused" and "wasteful" alternations between over-cheapness and over-dearness (*Rep.* (1800), vol. xxvi. pp. 30, 31; (1830), pp. 295, 304). This language is natural to men who dread competition as an unknown power, and recurs on almost every page of 17th century opponents of "free trade" (individualism). As for (6), the plea that working coal is incompatible with freighting and sending coal to market (*ib.* pp. 415, 472)—although these incompatibles were habitually combined when the vend was off—is redolent of the middle ages, which separated trades as we do professions. As for (7), annual wages, they said, necessitated an annual price-list (*ib.* p. 422; (1836), p. 81)—the converse would have been equally near the mark, for most gild arrangements are annual. (8) The exclusion from the vend of coal sent inland, abroad, to the Orkneys, and to Ireland (*Rep.* (1830), pp. 433, 463) and, (5) the absurd trichotomy (*ib.* 469, 470; (1800), 14, 100), were noted but not explained; so was the partnership scheme (1), under which each paid calls proportionate to his appointed share in the sales (*Rep.* (1836), p. 18), and each took in severalty what he sold within the prescribed limit, but accounted as partner to the other coal-owners for any excess (*Rep.* (1800), pp. 19, 20, 98); indeed, a continuous history from the time when one company owned every mine furnished the only possible key. As for (9), fines were, under the constitution of 1833, secured by

deposit, but warnings (*Rep.* (1837-38), vol. xv. p. 91) and boycottings (*ib.* 89, 90, 265; (1836), p. 22) were the usual penalties.

The spirit, as well as the institutions, of the gild dominated this ring, though much was inexplicable when they proclaimed "self-interest their *primum mobile*" (*Rep.* (1836), p. 92). Industry was in a semi-conscious customary stage, and men only expected to justify part of what they did; and justified that part by repeating, as faithfully and unconsciously as parrots, all the old sophisms forged by the founders of the system—for it was a system every part of which cohered until the last. When one prop was removed, the entire edifice collapsed.

Its Death (1844-45).—Between 1837 and 1843 two collieries were worked by joint-stock companies, to which gild methods would be *ultra vires*. After 1834 the London Gas Company defied the sixth rule, and treated with the producer direct (*ib.* pp. 37, 42, 193-203). The competition of certain Tees-side collieries, which would not join the vend, sent prices down and production up, and induced the masters to snap what looked like the least essential link in the chain—the seventh—and to dictate a monthly in lieu of the old annual bond. The Tyneside, Wearside, and Tees-side miners struck against the new bond (*Rep.* (1873), vol. x. p. 304; Fynes, *Miners of Northumberland and Durham*, pp. 62, 77, 104) and lost. But the spell was broken, and the masters never even proposed to resuscitate what they had renounced, but only such parts of it as appealed to their class interest.

Its Successors: a Modernised Gild (1844).—Mr. Lambert writes, in *Two Thousand Years of Gild Life* (p. 368), that if in some national trade masters and men combined to regulate output prices, profits, and wages, this would be the nearest conceivable reproduction of the gild as it was 300 years ago. He seems unaware that a proposal to regulate the English coal trade on this basis was made by the miners, and rejected by the masters in 1844 (Fynes, p. 50).

The Trust (1845).—The leaders of the gild-ring tried, and only just failed, to erect on its ruins a joint-stock company composed of north of England coal-owners, and with the object of reviving the second, third, and fourth features of the vend (*Rep.* (1873), pp. 297 *et seq.*).

The Trades Union.—In 1836 both masters and miners wished to restrict output (*Rep.* (1836), p. xv. n.), and this policy has since then been often put into practice by the miners with the avowed object of raising prices (*Rep.* (1873), p. 10); indeed this policy and object were the *raison d'être* of the coal strike of 1893. The proposal of 1844, and the strike of 1844-45, were bids for the succession to the traditions of the vend; and when in 1845 the gild-ring tried to pass on its diminished torch to a trust, the miners snatched it from their hand.

[For the "order and agreement" of 1602, see Brand, *Hist. of Newcastle*, ii. 273, 274 n.; for "agreement" of 1665, see *Reports from Commissioners* (1871), vol. xviii. *Rep. of Committee*, E., p. 8; for that of 1768, *ib.*, App., p. 3; for "rules" and "agreement" of 1833-34, see *Reports of Committees* (1836), vol. xi. *Rep. of Committee on the Coal Trade*, pp. 6-9. Tables and accounts illustrating different vends are given in the *Report* of 1871, App., p. 3 [1768].—*Reports of Committees* (1800), vol. xxvi. *Report on the Coal Trade*, p. 98 [1799].—*Reports of Committees* (1830), vol. viii. *Rep. of Lords' Committee on the Coal Trade*, pp. 57, 58 (or 461, 462) [1828].—*Rep. of Com.* (1836), vol. xi. *Report of Committee on the Coal Trade*, pp. 246 *et seq.* [1835-36], pp. 52-55 [1836].] J. D. R.

VENDOR AND PURCHASER. The normal sale of land is in English law a process with three stages.

(1) First there is the formation of the contract for sale. The vendor usually embodies his offer in two documents: (*a*) particulars of sale which specify the locality and size of the estate, and must state if it is anything less than an estate in fee simple in possession free from incumbrances; (*b*) conditions of sale which state the time and mode in which details belonging to the second and third stages shall take effect. The acceptance of the vendor's offer must be signed by the purchaser and must refer to the parties, subject matter, and price. If verbal, it is unenforceable unless the parties have acted on it to an irrevocable extent. (2) The effect of the first stage is to introduce a stage intermediate between contract and conveyance; or in technical language, the ownership has passed in equity but not in law from vendor to purchaser. During this stage, which remotely resembles an action conducted without (until 1874) an oral hearing, the vendor may not damage nor alter the character of the property in possession of which he still remains but as constructive trustee; and he must prove his title in the method prescribed by rules which have grown up in the courts of equity, and are contained but not codified in the *Vendor and Purchaser Act* 1874, and *The Conveyancing Acts* 1881, pt. ii. and 1882, or by the conditions agreed on in the contract for sale, or more often by a mixture of these public rules and private conditions. If or in so far as there are no conditions, the contract is called an "open contract," and the rules prevail; but the conditions, unless expressed ambiguously or in a manner calculated to mislead, modify or replace the rules. If the contract is "open" the vendor must produce an abstract of all documents and events material to his title, and must produce originals of deeds, marriage and death certificates, etc., for verification with the abstract, and the abstract so verified must prove that he has power to sell the property in the way in which he has offered to sell it. The proof need only go back forty years, and must be as strict as in an action, but facts recited in documents twenty years old prove themselves; and purchasers of leaseholds cannot call for the freehold title. There are few titles which can pass unscathed through this ordeal; but the purchaser must point out flaws to the vendor within reasonable time, or else it will be assumed that he has waived them. Conditions of sale are usually framed preventing the purchaser from making these objections, or enabling the vendor to meet them by statutory declarations, by compensation, or by some answer which would not, in the absence of such conditions, be binding. If there are no flaws of title or all flaws are waived, adjusted, or removed, the vendor's case against the purchaser is complete, and the purchaser completes his case against the vendor by tendering to him the price and a deed of conveyance which is in accordance with and, if properly drawn, supersedes the preliminary contract and negotiations. Disputes on these matters or on any isolated points which do not affect the validity of the contract as a whole are, since 1874, settled by summary oral procedure in the chancery division. (3) With the execution of the conveyance and payment of the price, which until payment is a lien on the property, the relation of vendor and purchaser ceases, and the estate which the vendor had power to convey, vests in the purchaser. Up to that date they have been united by numerous reciprocal duties. The most important duty is not to mislead; and the vendor, and in rare cases the purchaser, have the additional duty to disclose "latent" defects which the other

party has no means of discovering for himself. Breaches of duty by one party, unless condoned or written off against breaches of duty by the other party, disentitle him to equitable relief. Equitable relief is now administered by the chancery division, and consists of the following ascending scale of remedies: (1) the court remains neutral; (2) or grants damage in lieu of specific performance; (3) or specific performance (*a*) of the contract (*b*) *plus* a new term, or (*c*) *plus* compensation making good any breach of duty; (4) rescinds the contract, and if purchaser is plaintiff, may order his deposit (if any) to be returned with interest, and may charge the property therewith; (5) orders the contract to be delivered up and cancelled. If equitable relief is not asked for an action for damages for breach of contract or for TORT (*Law Reports*, 1891, 2 Q.B. 456) or for money had and received, may be brought in the Queen's Bench division, or in minor cases in the county court.

Exceptional Cases. Where land is sold by forced sale to a public body under the Lands' Clauses' Act 1845, parties under disability may contract to sell and sell, the purchaser may enter into possession after paying a deposit and on giving a bond, conveyance vests in the purchaser, all estates which have been paid for, and outstanding estates when they are paid for, and if the vendor will not convey the purchaser may dispense with it. Briefly (1) the capacity to contract is enlarged; (2) the completion of the contract takes effect as an out-and-out sale in certain cases. Otherwise the process is as above.

The provisions for registration in the Land Transfer Acts 1875 and 1897 alter the whole process described in the above. The purchaser of registered land acquires no property by the conveyance, but acquires the entire ownership by entry on the registry; and no investigation of title takes place in the case of an absolute title.

In so far as the title is registered as less than absolute the ordinary rules prevail. The act of 1897 is the first to contain compulsory provisions; which, however, do not come into force in any district unless adopted by the county council.

[E. Sugden, *Vendors and Purchasers of Estates*, 1805, 1862.—J. H. Dart, *Vendors and Purchasers of Real Estate*, 1888.] J. D. R.

VENTURI, GIAMBATTISTA (1746-1822). Born at Bibbiano (Reggio Emilia). He was an abbé and a man of great and varied attainments, he studied mathematics and physics, literature and history. He occupied himself greatly with economic and financial questions on these subjects, wrote and held discussions with able economists. He held many public offices in the duchy of Modena, was professor of geometry and physics at the university, state engineer, and assayer of the mint. Later on he held offices in the government of the Cisalpine republic.

Among his works of interest to economists is a report illustrating the advantages of the decimal system, his *Pareri di finanza*, preserved in manuscript in the archives of Modena. MONTANARI attributed to Venturi an anonymous article published in the *Nuovo giornale dei letterati d'Italia*, printed in Modena in 1773; in this work the author reviews the *Meditazioni sull' economia politica* by VERRI, he mainly discusses the theory of value, and fiercely criticises the mathematical method applied to political economy, used by Frisi, who edited Verri, in a series of notes on his work—*Rapporto della commissione di commercio, etc., sopra il sistema da adottarsi nelle nuove misure, monete e pesi della repubblica*, 1798.—*Pareri di finanza* (manuscript). [De Brignoli, *Memoria biografica del cavalier abate Giambattista Venturi*, 1835.—Montanari, *La teoria matematica del valore ed uno scrittore emiliano del secolo scorso*, 1891.] U. R.

VENUSTI, M. ANTONIO MARIA (16th century), was the author of two works on commerce, one containing a defence of trade, particularly of wholesale trade; the other a development of a theory on value, which, though unoriginal and obviously inspired by the doctrines of ARISTOTLE and S. THOMAS AQUINAS, merits mention for the fluency of its explanations.

Venusti examines into the elements of a just price (see JUSTUM PRETIUM) which he considers to be the one prevailing at the time and place of a contract—the circumstances of selling and buying, the quantity of goods and money, the number of buyers and sellers, and the convenience and usefulness of the bargain, according to the judgment of upright men incapable of dishonesty.

Venusti makes a minute analysis of these elements, illustrating them by the theory of SUPPLY AND DEMAND, and to some extent opposing this by the theory of cost of production, asserting that *giusto prezzo* springs from abundance or scarcity of goods, and of merchants and money, not from cost, labour, or risk.

Discorso d' intorno alla mercantia.—Istitutione dei mercanti: both published in one volume entitled *Compendio utilissimo di quelle cose le quali a nobili e christiani mercanti appartengono*, 1591.

[Gobbi, *L'economia politica negli scrittori italiani del secolo XVI.-XVII.*, 1889.—Montanari, *Contributo alla storia della teoria del valore*, 1889.] U. R.

VERDERERS. See FORESTS, MEDIÆVAL.

VERGANI, PAOLO (18th century). The author of an important work on the custom-houses of the papal states, containing many facts and intelligent opinions. Vergani studies the principles of customs regulations, and in particular the tariff of customs duties established by Pius VI., at the same time he explains the ideas of the day on customs duties in the most civilised states.

He advocates moderate and temporary protection; criticises the PHYSIOCRATS, and explains the point of view they started from in order to support absolute freedom in trade; he combats the theory that agriculture, and above all things the cultivation of cereals, constitutes the only true wealth of a nation; he would establish a new financial system in the papal states promoting manufacture. Vergani starts from the principle of protection for national industries, with a corresponding system of taxation, at least until other states adopt a similar taxation, and until the industries have reached a certain degree of development. He admits, like VERRI, that if all nations agreed to abolish the taxation of goods, then universal and unlimited freedom would not be injurious to the arts. He also studies the details of customs duties and advises the transformation of duties *ad valorem* into specific duties, thus showing his perception of the most correct system of technical taxation.

Vergani treats the subject of customs duties with great breadth, and his book may be regarded as a complete treatise on the subject—its breadth of ideas, wide technical observation and clear

expositions, placing him among the first financial theorists of his day.

Dell' importanza e dei pregi del nuovo sistema di finanza dello stato pontificio, 1794.

[Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, 1884.—Graziani, *Le idee economiche degli economisti emiliani e romagnoli*, 1893.] U. R.

VERRI, PIETRO (1728-1796) was born at Milan, of a noble family; he first entered the army and fought at Soran in the Austro-Prussian war.

At Vienna he commenced the study of economics, and wrote the *Elementi di commercio*; he continued these studies in other publications after his return to Italy. In 1765 he was made a member of the supreme council of economics, and then privy councillor of state. He played an important part in the financial reforms of the Milanese states, especially in the reform of the customs duties tariff, which was entrusted to him. In 1786 he retired into private life and devoted himself to his studies; later on, he again took office at Milan, after the entry of the French.

Verri's principal work is the *Meditazioni sull' economia politica* several times reprinted, also in the Custodi collection and in the *Biblioteca dell' economista serie I^a*: the *Meditazioni* were translated three times into French, twice into German, and once into Dutch; they form the best summary of political economy published in Italy in the last century, and one of the best in any country.

Verri, in this work, makes a minute analysis of production, and examines the different causes which allow a country to gain wealth or prevent it from enriching itself by an excess of production over consumption, thus obtaining a maximum produce on which the increase of population depends.

Verri is not content with abstract theory, but studies the actual conditions of different countries, observing the causes which render changes necessary in legislative regulations.

He is, therefore, eclectic; this is chiefly noticeable in the question of international trade, which he examines with great width of view. Without altogether abandoning the principle of the balance of trade, Verri severely criticises it; at the same time he combats the PHYSIOCRATS, showing the productiveness of manufactories. He advocates free trade internally, and the free export of corn, at the same time he allows taxation on the export of raw materials, and on the import of foreign manufactured goods; he would protect national industries, observing that the abolition of customs duties would be prudent if simultaneously adopted by all nations, but injurious to any one nation doing so if the others continued these duties.

Verri combats an unequal division of wealth and excessive concentration of great properties. He displays sound ideas on value, though he does not attain to the conception of normal value (see VALUE), and endeavours to reduce the laws of value solely to the principle of DEMAND and SUPPLY.

Verri's *Meditazioni* contain also a perfected and in some part original theory on taxation. He considers taxation to be a payment made by a person to the public exchequer of a portion of his possessions in order that he may in safety enjoy the remainder, its necessary limit being fixed by the amount of public expenditure incurred for the good of the community. This becomes injurious when it exceeds the economic resources of a country, and is not proportional to the general wealth, or unequally imposed among private individuals. Every tax tends naturally to level itself uniformly on each citizen in proportion to that which each consumes. The most equitable tax is that which falls directly on the largest consumers, owners of land, buildings, and goods, on whom in any case all taxes would fall.

Verri, therefore, proposes a tax on land to reach land-owners, customs duties to touch merchants and those engaged in trade—maintaining that eventually these taxes would reach all consumers.

It is easy from the point of view of to-day to criticise Verri's system of taxation, but this does not prevent it from being the best plan which could then have been designed, and in principle it is the basis of the systems elaborated later.

Some of Verri's other writings are of great importance. In his philosophic discourses, *Discorsi di argomento filosofico*, he takes broad views of social economy, discussing the national inclination of man to happiness, the "calculus of pains and pleasures," and the favourable influence of the severer climates on economic development over the more relaxing southern countries of the world. His *Memorie storiche*, published after his death, on the history of trade in the Milanese states, are amongst the most noteworthy works on Italian economic and financial history.

Elementi del commercio, 1765.—*Memorie sull' economia pubblica dello stato di Milano*, 1768.—*Meditazioni sull' economia politica*, 1771.—*Riflessioni sulle leggi vincolanti principalmente nel commercio dei grani*, 1796.—*Discorsi*, etc., 1781.

[Ugoni, *Della letteratura italiana nella seconda metà del secolo XVIII.*, 1821.—Cossa, *An Introduction to the Study of Political Economy*, 1893.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1891.—Gobbi, *La concorrenza estera e gli antichi economisti italiani*, 1884.—Bouvy, *Le comte P. Verri*, 1889.] U. R.

VERT. "Bonnet Vert" or "green cap," in old French law meant a bankrupt who had satisfied the courts. In Scotland, where something like the French practice was adopted, the cleared bankrupt went about in a yellow cap (cp. WHITE BONNET).

[See Burton, *History of Scotland*, vol. viii. p. 70 (ch. lxxxv.)]. J. B.

VETHAKE, HENRY (1792-1866), was born in British Guiana and died in Philadelphia, where he had been connected with the university of Pennsylvania in various capacities for thirty years. He took his first degree at Columbia College (New York) in 1808, and taught mathematics and allied subjects in the same institution (1813), in Queen's College, now Rutger's (1813-1817), in Princeton College

(1817-1821), in Dickinson College, Carlisle, Pennsylvania (1821-1829), and in the university of the city of New York (1832-1835). In 1835 he became president of Washington College (Lexington, Virginia), and in the following year professor of mathematics in the university of Pennsylvania. Ten years later he was chosen vice-provost, and in 1854 provost. Shortly after becoming provost he exchanged his chair of mathematics for that of intellectual and moral philosophy. After resigning the provostship, he remained emeritus professor in the university, while engaged in teaching higher mathematics in the Philadelphia Polytechnic College.

Although never nominally an instructor in political economy, he probably taught that subject in at least four of the schools with which he was connected, since his *Principles of Political Economy* (Philadelphia, 1838), published two years after he became a professor in the university of Pennsylvania, is dedicated "to the numerous young men who at different periods during the last sixteen years have attended his lectures on political economy." This work is a systematic exposition of the principles of the science as then generally held in England and France. It avoids all reference to writers whose views differ from his own. He attempts a few innovations, prominent among them, the extension of the definition of wealth and of capital to include immaterial or intellectual products, which the author himself calls a *bold* innovation, though he might have discovered precedent for it among classical writers.

Of greater practical value was his American edition of J. R. M'Culloch's (*q.v.*) *Dictionary of Commerce and Commercial Navigation* (Philadelphia, 1847). He added many valuable articles, *e.g.* "A Historical Account of Banking in the United States" (36 pp.), and short supplementary notes on such subjects as *American Coinage; Aliens in the United States*, etc. E. T. D.

VICESIMA HAEREDITATUM. A tax upon successions to property, usually said to have been established by the Emperor Augustus. In the Roman republic direct taxation of citizens had never been more than occasional, and had become obsolete with the growth of the provincial revenues. The reorganisation of the state by Augustus involved a great increase in the ordinary expenditure, and it became necessary that Italy should, as well as the provinces, contribute regularly to the public expenditure. As it was not convenient to subject Italian soil to the land tax levied on the provinces, an equivalent was taken on this tax on successions. As the name shows, it was fixed at the rate of 5 per cent. Exemptions were granted in favour of direct heirs and of persons taking legacies or inheritances below a fixed minimum. The Emperor Caracalla extended this tax to the whole empire by conferring the citizenship of Rome on all its inhabitants other than slaves. He is also said to have raised it to 10 per cent. Soon after his death it was reduced to its old figure. It disappeared in the later times of the empire.

F. C. M.

VICO, Giambattista (1668-1744), was born at Naples, the son of a bookseller, studied philosophy under the Jesuits, and adopted the profession of advocate, which, however, he soon renounced. The patronage of the bishop of Ischia procured for him employment as teacher of his nephews, the sons of the Marquis Domenico Rocca; this office he held for nine years, during which he earnestly pursued his studies. He was appointed professor of rhetoric in the university of Naples, which office he filled during forty years, not having obtained the great object of his ambition—the chair of jurisprudence in that university. In 1744, the year in which he died, he was nominated historiographer to the king of Naples.

Vico was undoubtedly a great and original genius. Professor Flint is justified in the opinion that it is impossible to read him "without feeling oneself in contact with a singularly profound and powerful intelligence." The work on which his reputation rests is *Principii di una Scienza Nuova d' intorno alla commune natura delle nazioni, per li quali si ritrovano altri principii del diritto naturale delle genti* (1st ed., 1725; 2nd ed. much altered, 1730). This book, on its publication, made an impression in Italy, especially among learned circles at Venice, but was scarcely noticed at all in other European countries before the 19th century. Herder and Wolf referred to it; Salfi called the attention of the French public to it; and Michelet published, in 1835, *Œuvres choisies de Vico*, containing a paraphrase of the *Scienza Nuova*, with an introduction on the life and writings of the author. Vico's object was to construct "an ideal and eternal history," whose phases should serve as types of the actual revolutions of all ages, within which all the histories of particular nations should take their places in the order of their birth, progress, maturity, decline, and end. From the common nature of nations comes amongst all peoples a "constant and universal knowledge of things human and divine," and thus is discovered, as a principal corollary of the *Scienza Nuova*, a system of natural law—an "eternal ideal law, which is in force in the universal city, a city founded in the thought of God, and in the form of which are instituted the cities of all times and countries." His ideas are habitually clothed in theological and metaphysical forms; but many of them admit of a scientific interpretation and correspond to doctrines of positive sociology.

The threefold basis common to all societies is, in his view, religion, the institution of marriage, and respect for the tomb; every community passes through three stages—a divine, a heroic, and a human age—with successive systems of law, political constitution, morality, respectively corresponding to and characterising these. But he does not go beyond this movement of each society, which he regards as indefinitely recurrent; he does not study, or apparently recognise, the con-

tinuous life of humanity—represented, not by a series of cycles, but by a rectilineal progression, only modified by frequent oscillations. He failed to create the philosophy of history; but he gave a strong impulse to the study, supplying many hints towards solving its special problems. For the Cartesian criterion of individual feeling he substitutes the *sensus communis* of the race, the spontaneous impression of the mass—of a whole people—of mankind; considering that most writers make too much of the "inexplicable superiority of a few great men," as explaining historical facts; such men he regards as products of their age; they are, as is now said, organs of humanity.

Vico was not specially an economist; but his ideas on the nature and life of political communities are valuable to the economist, who cannot correctly understand the phenomena with which he is primarily concerned, if he does not view them in relation to the general structure and development of society.

There is a complete edition of Vico's works by Giuseppe Ferrari, in 6 vols. (Milan, 1844). The *Scienza Nuova* has been literally translated into French by the Princess Belgiojoso (1844). There is no English translation.

[Introduction to Michelet's *Œuvres de Vico.*—Professor Flint's *Vico* in Blackwood's *Philosophical Classics for English Readers.*] J. K. I.

VICTUAL BRETHREN. These were a privateering organisation formed under the patronage of the HANSEATIC LEAGUE in their wars with Waldemar of Denmark. On the restoration of peace the freebooters turned their hand against every one, and though as a federation they soon ceased to exist, the North Sea and Baltic were in a state approaching anarchy until nearly the end of the 15th century. From this disturbed state of affairs England reaped much good. For the HANSARDS claimed the commercial monopoly of the Baltic, and Denmark of Iceland, and just as their power began to wane, the attacks of the Victual Brethren gave the English an excuse for reprisals. The coasts of England were continually ravaged by the North Sea pirates; Scarborough, Sandwich, and Southampton were pillaged and burned; London and Norwich had to defend themselves. Many English ships were captured by freebooters and the inhabitants of the coast lived in fear of kidnappers. Of course reprisals were made, and now and again a payment settled the claims of England and some HANSE TOWNS upon each other. However the outcome of all this anarchy was in favour of England. Through the quarrel of Denmark and the Hansards she had gained a foothold in the Baltic, and the EASTLAND COMPANY was formed to trade with the Teutonic Knights. Regardless of INTERNATIONAL LAW, English ships carried on a clandestine trade with Iceland in furs and fish, and, in spite of reprisals, persisted in it. Moreover the need of combination forced England to realise the necessity of a navy. Convoys of ships began to be formed, and in 1406 the merchants were authorised to take dues on staple exports and 3s. on every cask of imported wine to defray the expenses of two admirals, appointed by the king, to defend the north and south coasts. In a few years this system broke down, but in 1453 the earls Salisbury, Shrewsbury, Worcester, and Wiltshire, and Lord Sturton, were empowered to collect TONNAGE AND POUNDAGE, and to raise money on the security of these taxes, in payment for the defence of the coasts. Though this arrangement also speedily failed, a precedent had been set that in the end prevailed. L. R. H.

VIDAL, FRANÇOIS (*b.* 1812), marked the transition in France from the utopian socialism of ST. SIMON and FOURIER to collectivist socialism.

In his works, as in those of his contemporary PECQUEUR—both now nearly forgotten—the principal doctrines of collectivism are clearly expressed and reduced to formulas; among these are the so-called "iron-law" of wages, the theory that wealth is the produce of the work "of others" (*d'autrui*), and that economic evolution leads infallibly to the socialisation of the land and of capital.

Vidal, however, does not go so far as this in his conclusions. He contents himself with co-operation for producers, profit-sharing for labourers, and a minimum wage fixed by law.

His principal works are *De la répartition des richesses et de la justice distributive* (1846), a critical explanation of the doctrines of the liberal school and those of the principal French socialists, interesting even at the present day; and *Vivre en travaillant* (1848). C. G.

VIGANO, FRANCESCO (1807-1891), was born at Cigognola (Como); died at Milan. In 1828 he was exiled by the Austrian government and travelled abroad for many years. While in Paris he joined the Saint Simonians (see SAINT SIMON); later on he supported Mazzini, and conspired with him in Italy. For thirty years Vigano taught commercial science at the technical high school in Milan.

After 1843 he devoted himself entirely to promoting international peace and the extension of co-operative societies, devoting himself to the cause enthusiastically and untiringly until his death, not only by words, but by giving up his fortune and by writing numerous works on the subject—many were translated into different languages.

The two most important are: *La fratellanza umana*, 1873 (translated into French).—*Le banche popolari*, 2nd ed., 1875. U. R.

VILLAGE COMMUNITIES. In theory "an organised self-acting group of . . . families exercising a common proprietorship over a definite tract of land (*Maine*)"; but setting aside for the moment this and other *dicta*, and not stopping to discuss side-issues respecting the MANOR

(*q.v.*), it may be said that a village community of the kind met with in England in the 11th century consisted of a body of men of various degrees of personal freedom, cultivating, by co-operative industry, open fields which chiefly belonged to a lord. Some were free and owned the acre strips they ploughed; some were in a modified state of bondage, and held their land by the render of agricultural services (see SERVICES, PREDIAL AND MILITARY); and a small and fast-diminishing number of others were in absolute slavery to a lord who owned both them and the bulk of the land his group of peasants were cultivating (see VILLANUS and SERVUS). The village was a cluster of cottages, often gathered closely round a church, and contained not only the cultivators and their REEVE (*q.v.*), but the smiths, carpenters, tilers, and others whose labour was essential towards rendering the village completely self-sufficing in an economic sense, and whose work at forge or bench was repaid by a settled share of the results of cultivation.

A walk through the flat country westward of Bruges, or a railway journey between Aix-la-Chapelle and Cologne, will show the lineal representatives of similar village clusters in the midst of hedgeless, houseless, stretches of open country which the present inhabitants of each cluster are tilling. Sight will not make us too readily aware of the exchange of produce for money which now goes on, or of the irrevocable change in personal status which has taken place in the course of centuries, but we may accept the assistance of external forms and realise from them what a true village community must once have been.

In races which tend towards improvement, blood-relationships and the social instincts of man would suffice to congregate the humbler elements of a population engaged in field labour into such village communities as those described; but external forces might have the same result, and thus many questions arise on the history of these groups.

Were village communities really primitive institutions? Did they start as free or unfree? If the manorial system was superinduced so as to form an external shell to the village community, when and how did it happen? What was the relation of the village community to the tribal system with its constant redistributions of land? Is it true that "joint-ownership, and not separate ownership, is the really archaic institution"? But the answers as yet given to these and other queries do not resolve all doubts.

Setting aside writers like G. L. Gomme, who draws evidence from the Russian MIR (*q.v.*) and the customs of Fiji, F. Seebohm's *English Village Community* deserves early and careful attention.

With respect to England, Seebohm states his conclusion that there have always been two rural systems, the tribal community in the west, and the village community in the east, each connected with its own special form of open-field cultivation. Both he believes to have been pre-Roman. The village community in eastern England was connected with a settled agriculture which was apparently improved during the Roman occupation, and was carried on under the THREE-FIELD form of the open-field system, which became the shell of the village community. The quality of the holdings, and the succession of a single tenant which preserved it, were signs, not of an original allodial allotment on the German MARK SYSTEM, but of a settled SERFDOM under a lordship, each tenant having but the user of the land at the will of the lord. This serfdom, Seebohm thinks, was to the masses of the population not a degradation, but a rise from a once more general slavery. In western England he sees the tribal community, of a pastoral rather than an agricultural type, bound together by ties of blood-relationship and further distinguished by the redistribution of lands (see TRIBAL SYSTEM).

The manorial system, however, was not, Seebohm thinks, a mere development from the German tribal system described by TACITUS. There was a Roman element in it, derived from the *villa* with its *coloni*, *tributarii*, and slaves working under the *villicus*, and the manorial estate became the predominant form of land ownership in what had once been Roman provinces on the continent. Thus the German successors of Roman lords of villas became in turn manorial lords, whilst the *coloni* and others remaining on the land apparently became, "with scarcely a visible change, a community of serfs." He thinks that Pliny's words (*Nat. Hist.*, xvii. 4) as to Belgic Britain indicate a one-field system, and that the three-course rotation of crops was introduced by the Roman conquerors, so that the open fields round the *villa* of the Roman lord, cultivated by his *coloni*, *tributarii*, *liti*, and slaves, may have been at once arranged on the three-field system. Indeed he quotes from Siculus Flaccus (Lachmann, p. 152) the case of *possessores* who do not own *continuas terras, sed particulas quasdam in diversis locis, intervenientibus complurium possessionibus*, "words which amount to a partial description of the open-field system."

Like many other students of history, Seebohm disbelieves in the total obliteration of the Romanised Briton, and thinks that, taking England as a whole, the continuity between the Roman and English system of land management was not really broken, and that the earlier "*hams*" and "*tuns*" of Ethelbert's laws were undoubtedly manors.

The theories included under the mark system of the Germanists have been vigorously attacked by FUSTEL DE COULANGES, who considered that he had swept away all historical basis from them, leaving primitive communism as an unproved possibility. Certainly he has shown that the word *marca* in early German law does not mean an area of land held in common, but primarily a boundary or frontier, and, in a derivative sense, the private property which it surrounds. He has shown furthermore that a blunder with respect to a word in an ancient deed, *anales* for *ariales*, led Maurer to believe in the periodical redistribution of village lands. To this writer's *Origin of Property in Land*, Professor Ashley has prefixed a valuable chapter on the English manor in which he argues from Cæsar (*Bell. Gall.*, v. 14) that the village community did not exist among the Britons, as "most of those in the interior sow no corn, but live on flesh and milk." Further than this, in Ireland, Scotland, and Wales the early population

was mainly pastoral, and there is no trace of the village community among them. On the other hand it appears from Tacitus (*Agricola*, xix.) that Britain had become a corn-growing country, and later, from Zosimus, that in A.D. 360 Julian fetched corn from thence in 800 vessels. We know too from the Theodosian code (xi. tit. vii. 2) and Ammianus, xxvii. 8. 7, that there were *coloni* and *tributarii* in England in A.D. 319-368. In other words the very classes of free, or imperfectly free, cultivators which were characteristic of the Roman *villa* were actually working in Britain under their Roman designations, and the existing traces of Roman occupation in rural districts are eloquent as to all that remains to be proved as regards the presence of the true *villa* and its personnel. These cultivators were reinforced by imported bodies of conquered barbarians who, as De Coulanges shows (*Recherches sur quelques problèmes d'histoire*, p. 43), became not PEASANT PROPRIETORS but tenants bound to the soil. The manor of continental Europe was the continuation of the *villa* of the Roman domination, and the features of the English manor run so closely parallel to those of manors across the sea that it is scarcely possible to doubt that in the English mediæval manor we have the Roman *villa* slightly modified by the Teutonic invasion.

Vinogradoff's important work on *Villainage in England* presents us with very cautious views. "The communal organisation of the peasantry," he says, "is more ancient and more deeply laid than the manorial order." He argues that the open-field system is so strange and inconvenient when viewed from the standpoint of private ownership, and so natural and convenient when regarded as a communal system, that it must be of the latter character. But apparently against this conclusion there stands the fact that there are three main sizes of holding, the VIRGATE, bovate, and cotland, and the further fact that these holdings are indivisible and are not varied according to the size of the families that have to subsist on them. These he interprets as signs that the institution is in a state of transition, and is distorted from its original shape. This distortion is due to the manor. The rigidity of the holdings would, from a communal point of view, be unjust, but from a manorial standpoint extremely convenient for keeping intact the working units of service. And yet the holdings are not formed for manorial purposes, for they depend upon another element. The virgate is one quarter of a hide because two oxen, the normal equipment of the *virgatarius*, form one fourth of the great plough-team of eight oxen. The land was thus parcelled out in units of oxen, and could not be divided because the ox could not. So we have in the scattered acre strips a trace of communal allotment, though no such redivision of the arable any longer occurs. In the treatment of meadow and waste we see, however, the former annually redistributed by lot, and the latter measured out by limitations of the number of animals that may be sent into it; and these are obviously communal methods of procedure.

The manor Vinogradoff regards as consisting of two elements, the peasant village and the demesne cultivated by its help, and he views the manor as of gradual growth and comparatively recent origin. He cites the PRESTATION—fowls, cheese, etc., sent to the lord, often at a distance—and the *firma unius noctis*, paid by a village to the king's household, as traces of something preceding the manorial system,—signs, indeed, of a former great over-lord exacting tribute from a village community, rather than a lesser lord close at hand cultivating land by the help of his peasantry. Another sign of the same he sees in those cases in which the DEMESNE consists of acre strips scattered among the rest in such a way that all is cultivated at one operation, and the villagers are not called up to the demesne farm to work on stated days. This he interprets as something intermediate between the tribute paid to a great over-lord by a practically self-dependent community, and the full manorial system. As a further sign of transition he cites the fact that in the earlier records few manorial officers appear, but in the later a large class of "sergeants." In early days the gathering of tribute for an over-lord and the supervision of a few manorial services did not need so great a staff of intermediaries. A further point against those who argue for an original servile community is the constant presence of freeholders (see FREEHOLD, HISTORICAL) who only do slight services, but yet are full members of the village group; and the manorial court furnishes another argument for their presence and effective influence, for servile suitors could never by themselves have acquired the position of judges in litigation. Furthermore the transfer of land is effected by an appeal to communal testimony (see COMMUNE), and custom and self-government prevail over attempts at capricious change. Everywhere, even during the feudal period, Vinogradoff finds traces remaining of a peasant class which formerly lived and worked in self-dependent communities, paying tribute to and owning the general authority of a great over-lord, "whose claims may be political and affect the semblance of ownership, but do not give rise to the manorial connection between estate and village."

These cautious words do not exclude the idea that the manor is due to the Roman occupation, and they permit the view that the early village community was a mixture of free and unfree elements.

The above are the theories which appear to have the best claim to public attention at present. The older notions, which are generally discarded, are amply set forth under MARK SYSTEM. Unbiassed study of the results of the Teutonic conquest on the Romano-British population may lead to settled ideas as regards England. Too great stress is undoubtedly laid by such writers as Freeman on extreme expressions used by the chroniclers. The city of Bath, to take an entirely unnoticed example, was captured from the Britons by Ceawlin in 577, and was "destroyed" by the Normans in 1088, and yet the *Gesta Stephani* (Rolls ed., 37, 38) describe the "arched chambers" of the Roman baths as the resort of invalids and loungers in the year 1138. It is clear that the heathen Saxons who would spare Roman baths might attach some value to Roman agriculture, and might retain, at least as slaves, communities of cultivators who could grow corn in plenty for their use (see SERVUS).

And two passages from Bede (*Engl. Hist. Soc.*, ed. ii. 62, 234) are significant on this point. Referring to a date before 705, he writes of the *Britones qui Occidentalibus Saxonibus subditi erant*, Britons living in subjection in Wessex, and then, under date 681, he states that there were 250 *servi* on 87 hides at Selsey. But there were 7000 hides of cultivable land in the South Saxon kingdom (see HIDE), which included Selsey, so that without for a moment insisting on strict proportion, which would give 20,000 slaves, we get figures which cannot at so early a date represent Saxons reduced to bondage, but must indicate a Romano-British population spared to act as labourers.

[All the books in the list appended to MARK SYSTEM, bear, like the article itself, directly upon village communities. To them may be added the following:—G. L. Gomme, *The Village Community*, 1890.—*The Nineteenth Century*, Jan. 1896, pp. 69-86.—F. W. Maitland, *Domesday Book and Beyond*.—Baden-Powell, *The Indian Village Community*, 1896.] R. H.

VILLANO, FILIPPO (18th century), was a Neapolitan jurist.

In his *Discorsi economico-politici* he follows the mercantile system, but would protect not only manufactures but also agriculture. He studied the condition of the kingdom of Naples and proposed the re-organisation of the taxation, particularly as to taxes on consumption, which he prefers to direct taxes.

On the other hand he quite fails to understand the question of the population, which he desired to see increased.

To combat usury, as it is injurious to agriculture, Villano proposes establishing a public bank to receive agricultural products to be sold at a reasonable profit, or to advance money on them to the agriculturists.

L'ozio autunnale; ovvero discorsi economico-politici, 1768-70.

[Fornari, *Delle teorie economiche nelle provincie napoletane*, ii., 1888;—Gobbi, *La concorrenza estera, etc.*, 1888;—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881]. U. R.

VILLANUS.

Villanus, p. 624; Villein Tenure, p. 626; Villenage, p. 626.

VILLANUS. Strictly a man of servile condition holding usually one virgate of land, that is the fourth part of a hide, in the common fields of a manor by base services; but the term is sometimes applied to one of free status who holds land by servile tenure. There were also villeins not settled on the soil who paid CHEVAGE (*q.v.*) for living outside the manor as artificers, and there must have been, as well, the sons of villeins acting as labourers, like the *homines qui serviunt extra domos patrum suorum* mentioned in the Peterborough *Liber Niger* (p. 163). The word *villanus*, the feminine of which is *nativa*, is in an economic sense opposed to *libere tenens*, while the corresponding terms *nativus* or *rusticus* denote unfree status as contrasted with the condition of a *liber homo* (see LIBERE TENENTES). Before the conquest it was the equivalent of *ceorl* or *gebur*, as in the *Rectitudines* (Thorpe, *Ancient Laws*, p. 185) and the body of 108,407 *villani* of Domesday no doubt included these classes, and probably, too, many free men holding in villeinage, for it must be remembered that Domesday treats of units of taxation and units of service, and was a census of responsibility and geldability, not of men and their status.

The ceorls had at an earlier date been personally free and could become thegn-worthy. Some were probably free at the time of the conquest; but the manorial system under the Anglo-Saxon kings had tended to reduce the peasantry to dependence, and Domesday Book shows, perhaps, their lowest depression. Later records, such as the Domesday of St. Paul's, show an upward development by which some became *libere tenentes*, while the term *custumarius* applied to the others, notably in the *Extenta Manerii* (4 Ed. I.), marks a position in which, though they were still in legal theory subject to the absolute will of the lord of the manor, that will moved in practice on the lines of custom, and left undisturbed the man who duly performed his services. The *villanus* could not quit the manor, and of course could not sell his holding; he was tallaged at the will of the lord; he paid MERCHET (*q.v.*) on the marriage of his daughter, and a fine on the sale of cattle; his son could not be ordained without the lord's leave; he was liable to serve as REEVE, and his minor offences were punished at the *halimote*. Legally he was viewed as annexed to the freehold, and so, through a technicality, could not be devised by will: but he could be sold, and deeds of sale of villeins are extant. His lands could be confiscated, but this probably seldom happened. Maitland (p. 45) gives a case in which a villein is ousted for denying that he is *nativus*, but is put back on confessing his servile status. On his death his holding passed to his youngest son (*Ramsey Cartul.*, i. 372), who paid a relief, and the widow paid a HERIOT for her life interest. To prevent claims of freedom, genealogies of villeins were carefully kept, for if a *villanus* could not be shown to be *nativus*, unfree by birth, the law would declare him free in status. If a lord treated his villein as a free man, granting, for instance, land to him and his *heirs*, the act operated as a manumission. A villein could not maintain an action against his lord except for bodily injury or deprivation of WAYNAGE (*q.v.*); but he could do so against any other person, for he was free in respect to all men except his lord. It has been asserted that villeins could not serve as jurors, but manorial records (Maitland, *Manorial Courts*, p. 94; and *Select Civil Pleas*, case 123) show that they did so in the *halimote*. They formed part of the juries which made the Domesday returns, and villeins habitually went with their

reeves to the courts of the hundred and the shire. Villeins, too, came under the system of FRANK-PLEDGE, and were thus free men as regards the criminal law. These facts would alone show that they were far removed from slavery.

A villein's normal holding, a virgate, commonly of about thirty acres, with rights of grazing cattle on the waste, and with grass rights as well, was in Anglo-Saxon times usually stocked by the lord with two oxen—that is a fourth part of the great plough team of eight oxen, a unit of labour which determined in a practical way the unit of assessment, the hide, of which a virgate was one quarter, and a bovate an eighth part. In addition, as appears from the *Rectitudines*, he had a cow and six sheep, and was provided with farming and household implements. In return he or his substitute worked, as a rule, for three or four days in the week from Michaelmas to 1st August on the lord's demesne lands at ploughing, harrowing, and other field labour. Often, too, he was bound to provide seed. At harvest time he worked still harder, and brought all his family, except his wife and grown-up daughters, with him into the field. There were the ploughing PRECARIÆ (*q.v.*) at other times in addition (see SERVICES, PREDIAL AND MILITARY). Usually he paid a small annual sum of money as well, and rendered at specified dates a fixed number of chickens and other produce. In some manors an ell of cloth was required, an exaction which points to weaving as a common home industry. The annual value of this labour varied very much. From 5s. to 8s. is a common reckoning, though there is an entry in the TESTA DE NEVILL, p. 186, c. 2, which values the annual services of a villein (probably after extensive commutations) at 8½d.; but those of a *nativus operarius*, an agricultural labourer, at 8s. 4½d. It is clear, however, that on the average the *villani* had a good margin of profit from their holdings.

Occasionally, even in early times, a villein commuted his services for money payments, and these commutations frequently led to successful assertions of freedom. The villeins on land in ancient demesne were chiefly villein SOCMEN, men free in status holding land in villenage. In all manors the lord would tend to view the mechanism as a whole, and if his demesne lands were well cultivated by the united teams of his peasantry, and if the stipulated produce was duly offered, he would have no inducement to disturb the working of a profitable co-operative organisation; while the early rolls of manorial courts show that there was in fact little wanton interference on his part. Occasionally the body of servile tenants appears to have been treated as a community, exchanging or adjusting claims with their lord, to whom they were often personally bound by an oath of fealty (Maitland, *Select Pleas, Manorial*, p. 172). In fact, throughout manorial records there is an inconsistency between the legal view of the *villanus* and his visibly sustained rights and privileges.

The early practice of commuting services for fixed money payments, the steady influence of the church, and the tendency of judicial decisions in favour of freedom, prepared the way for the breakdown of the manorial system which was to follow in the 14th and 15th centuries.

The gradual rise from the position of villein to that of copyholder began very early; but its first definite stage is marked by the Year Book of 42 Ed. III., which, in stating that if a customary tenant does not perform his services his land may be seized, shows that on due performance his holding was then legally secure (see COPYHOLD). This alone would show that the system of cultivation by a servile tenantry was breaking down. Many became free labourers, and the BLACK DEATH of 1348, by causing a dearth of cultivators, led to the statute of labourers, 23 Ed. III. c. i., by which hired service was made compulsory on all who had no definite means of living, and an artificial restriction was placed on the rates of hiring of the important class of free cultivators and workmen (see LABOUR STATUTES).

The statutes 1 Ric. II. c. 6, and 2 Ric. II. c. 7, show the smouldering of the rebellion among the peasantry which broke into flame in 1381, when the villeins extorted the charters of freedom which were annulled by 5 Ric. II. c. 7. Court rolls and other records of servitude were destroyed to an extent which necessitated the special provisions of 5 Ric. II. c. 9. Other methods by which the villeins were seeking enfranchisement were met by futile statutes, some of which restricted the power of apprenticing children of the peasant class. These appear in the 9th and 12th years of Richard II. and the 4th and 7th of Henry IV., and mark a late stage in the ruin of the system. It lingered, however, for many years, and Fitzherbert (*Surveyinge*, c. xiii. ed. 1539, p. 31) wrote of bondmen continuing in some places, while in 1536 their existence was publicly recognised by an abortive bill for their manumission. Mr. Hubert Hall has found a case in Elizabeth's reign in which predial services were exacted by a lord of a manor at Gimingham in Norfolk. But the queen exerted herself in favour of the villeins, and in 1574 issued a commission for the enfranchisement of those on certain royal manors (*Fœdera*, ed. 1713, xv. 731). Law cases in which villenage was pleaded appear as late as 1617, and relics of serfdom seem to have existed considerably later.

The case of the Scotch colliers who, it is stated in the act 39 Geo. III. c. 56, were "in

a state of bondage" in 1799 is, however, probably not one of hereditary serfdom, but of entanglement in legal difficulties.

[Vinogradoff, *Villainage in England.*—Cunningham, *Growth of English Industry and Commerce*, 1890.—F. W. Maitland, *Select Pleas in Manorial Courts* and *Select Civil Pleas* (Selden Soc.).—*Ramsey Cartulary*, Rolls Series.—*Peterborough Chronicle*, Camden Soc.—Seebohm, *Village Communities.*—Howell's *State Trials*, xx. 35-49.]

R. H.

VILLEIN TENURE, or tenure at the will of the lord of the manor by the render of base services (see SERVICES, PREDIAL; VILLANUS; and WEEK-WORK). R. H.

VILLENAGE. The servile condition in which the bulk of the English peasantry are found in the 11th century, and in which they continued down to about the middle of the 14th. From that time the villein class lasted in decreasing numbers and in improving conditions until, by the beginning of the 17th century, villenage had practically disappeared from England (see VILLANUS).

In old records the word *villenagium*, however, often means the part of a manor allocated to the villeins, or rather the sum of the scattered acre strips held by them. In the *Ramsey Cartulary*, for instance (ii. 37), we read "*de villenagio sunt ibi quinque hydæ.*" R. H.

VILLEIN. SEE VILLANUS.

VILLEINAGE. See VILLENAGE.

VILLENEUVE-BARGEMONT, VICOMTE ALBAN DE (1784-1850), born at the Chateau of St. Alban (Var.), became a prefect under the empire and the restoration, and a deputy during the monarchy of 1830. He was perhaps the earliest to describe his economic tenets as "Christian," thus subordinating the science to the teaching of the Bible and the doctrines of the Roman Catholic church.

Of his two works, the first, *Économie politique chrétienne ou recherches sur la nature et les causes du paupérisme en France et en Europe et sur les moyens de le soulager et de le prévenir* (3 vols. 8vo, 1834), as the sub-title shows us, only discusses indigence, charity, and benevolence.

He seeks to found political economy on new principles in opposition to those which the economists —especially in England—with whom he couples J. B. SAY, have taken as the bases of their works. He pities France for having undergone "the great catastrophe of the revolution of 1789," which he attributed to the anti-religious and anti-monarchical spirit diffused through that country, and he foretells for England "a catastrophe inevitable, more or less near, and without doubt terrible." Besides these faults, resulting from the spirit of the system which inspired their author, there is a great deal well said in his work, and which clashes, though unconsciously, with his expressed views. He made an exception among his countrymen, which should be noticed, in favour of MALTHUS, declaring that this author "proclaimed sorrowful though striking and serious truths."

Villeneuve-Bargemont's second book—*Histoire de l'Économie politique, ou Études historiques, philosophiques et religieuses sur l'Économie politique des peuples anciens et modernes* (2 vols. 8vo, 1841), is—even more than Blanqui's work with a nearly similar title—rather a history of facts than of ideas.

The economic literature referred to in this work shows wide reading compared to that of Blanqui, and is on this account interesting to study; unfortunately the author cannot persuade himself to break with his religious beliefs, and he too readily subordinates to these the principles of his science. Thus he reproaches the author of the *Theory of Moral Sentiments* for having omitted any consideration of moral and religious ideas in his *Wealth of Nations*. "Thus it is that modern political economy arose" —in it products are no longer made for man, but man for products. In a word, though sentiment, according to Villeneuve-Bargemont, should prevail, cold reason is the rule. But the author had happier inspirations than these. Preferring, from the religious and moral point of view, agriculture to manufactures, he assisted in founding, in 1822, the celebrated model farm at Roville (Vosges), which was directed by Mathieu de DOMBASLE until his death in 1843. A. C. f.

VILLERMÉ, LOUIS RENÉ (1782-1863), born and died at Paris. Patient and industrious, an acute observer, an able theorist, striving to reconcile, as far as possible, the requirements of the present with economic principle, Villermé had a large share in introducing the law of 12th March 1841 into France, amended 19th May 1874 and 2nd November 1892. This law aimed at the protection of children employed in factories, and to bring about similar good results to those produced in England by the acts of 1833, 1844, and 1878 (see FACTORY ACTS).

Having been directed by the Institute (*Académie des Sciences morales et politiques*), of which he had been a member since 1832, to enquire into the condition of factory workers, he visited the principal industrial centres of France, and brought out, in 1840, his *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine et de soie* (2 vols. 8vo). This work contained the results of enquiries made on the spot, and supplied information collected with the most commendable and conscientious impartiality. His conclusions were against invoking state intervention in favour of adults. Like Charles Dunoyer, whose liberal principles he adopted, he maintained that "nothing more can be done for workmen who rely on their own unaided efforts, and always keep their expenses within their means, and steadily lay by"; but he invokes the protection of the law for the children, those poor irresponsible beings whose sufferings he sympathetically describes, sometimes breaking into fierce indignation.[1]

The work quoted above is not the only book by Villermé deserving notice. He was also the

[1] At the present time this work is interesting from a historical point of view, as a description of the condition of the factory hands some half century since.

author of many reports on prisons, the movement of population, workmen's associations, CITÉS OUVRIÈRES, accidents caused by machinery, etc.

A doctor by profession, he early ceased to practise, and devoted himself to questions of public hygiene. During the 1832 epidemic of cholera in France, he resumed medical work, and courageously laboured among the sufferers, only ceasing his efforts when the scourge disappeared. A. C. L.

VILLES FRANCHES AND CHARTERED TOWNS. In the 13th century the kings of England frequently granted charters to English towns, which after receiving a charter usually became known as boroughs; but that word also applies to towns that were so called at the time of the Domesday survey, as Totnes and Barnstaple. The charters conferred many and various privileges; some were much wider and more extensive than others. Sometimes they were only granted by reference; thus the charter to Hartlepool (1201) conferred on the burgesses there the same liberties and franchises as were enjoyed by the burgesses of Newcastle-on-Tyne. In France such chartered towns were known as *Villes Franches*.

The privileges enjoyed by burgesses have been classified by Sir F. Pollock and Professor Maitland as follows: (1) Privileges of jurisdiction, such as the right of not being impleaded except in the courts of the BOROUGH; or the franchise of the return of writs, which were executed by the bailiffs or other officers of the borough instead of by the sheriff of the county. (2) Privileges of tenure, such as the right of disposing of land by will. (3) Mercantile privileges, such as freedom from toll outside the borough. (4) Power to farm the borough—that is, to take the borough tolls, to receive the profits of the borough courts, and the rents which before the grant were paid to the king. (5) Power to elect officers such as coroners and bailiffs, or a mayor; but it should be noticed that a MAYOR was not an essential officer of a borough. (6) Power to make bye-laws, though these were usually of narrow application. (7) Certain limited powers of self-taxation. (8) Power to form gilds merchant to maintain the mercantile privileges granted by the charter.

These privileges were not always enjoyed together; they were often granted by different charters. Nor did the grant necessarily make a borough; many manors enjoyed most of the usual privileges, but not the title of a borough.

During the 13th century, and especially during the reign of Edward I., many new boroughs were created, but afterwards this happened less frequently. As government became more centralised and the incidents of the feudal system less grievous, there were fewer advantages to be gained by these privileges. It has been stated that Edward I. granted charters as part of a settled policy; he certainly granted a large number to small but rising towns, such as Melcombe Regis in Dorsetshire. But his charters were of the same form as those of earlier kings; the one granted to Melcombe Regis (1280), for instance, was little wider than the one which King John granted to Northampton (1200). They, no doubt, did much to develop trade and industry; but it is probable that a charter was usually granted for pecuniary rather than political reasons; the king sold and the burgesses bought privileges (see GILDS).

[Pollock and Maitland, *History of English Law*, Cambridge, 1885, 8vo.—Maitland, *Domesday Book and Beyond*, Cambridge, 1897, 8vo.—Maitland, *Township and Borough*, Cambridge, 1898, 8vo. G. I. T.

VILLES NEUVES. In the 13th century a large number of towns were built in the south of France upon a certain definite plan; they are called Villes Neuves. Their principal streets all ran in the same direction, and were connected with one another by narrower lanes at right angles to them, so that the houses stood upon rectangular plots. There was usually a large square in the centre of the town for a market-place, but in one corner of it there was a church and graveyard. The two principal streets did not run through the square, but passed along two sides of it. Montpazier in the department of Dordogne is an excellent example of such a town. They were built to encourage commerce and were free from the jurisdiction of the neighbouring feudal lords, who looked upon their growth with much jealousy. They also enjoyed other extensive liberties and privileges. Most of them were built by Edward I. in Aquitaine; but similar towns had been founded in France before his time. Some towns of this nature were also built in England, of these Winchelsea and Kingston-upon-Hull are good instances.—Turner, *Domestic Architecture in England*, Oxford, 1851, 8vo. G. I. T.

VILLIAUMÉ, NICOLAS (1818-1877). This economist deserves notice as an early disseminator of the doctrines of State Socialism, at that time hardly recognised in France.

He published several historical works, as *Histoire de la Révolution de 1789*, and the *Nouveau traité d'Économie politique*, 2 vols. 1857, which passed through two editions. He maintained in this work the arguments in favour of government interference, progressive taxation, the suppression of the power of bequest to collateral relations, and the limitation of the rate of interest. These views, though scarcely heretical, drew upon him a severe admonition from Monsieur Hippolyte Passy in a report to the *Institut* (see *Journal des Économistes*, 15th August 1857), and a very flattering letter from John Stuart Mill. C. G.

VINCENT, J. C. M. DE. See GOURNAY.

VINGTIEME. One of the most obvious defects of French finance before the revolution was the exemption of the privileged classes

from direct taxation. The injustice of the system was strikingly depicted by VAUBAN in the DÎME ROYALE, in which he advocated the substitution of one universal tax on income in place of the existing imposts. The book was burned and the author disgraced, but the government did not forget the lesson which it so bitterly resented. In 1710 DESMARETS, the controller-general, reduced to great financial straits by the war of the Spanish Succession, induced the king and council to impose a *Dixième* based on the proposal of Vauban, not instead of, but in addition to, all the existing taxes. By the edict of 10th October all incomes, whatever their origin, and whatever the rank of the holder, were to pay the tax; the assessment was to be based on the returns of the tax-payers; all disputes were to be decided by the intendants, subject to an appeal to the royal council. No such blow had yet been struck at the edifice of privilege in France, and a cry of indignation was raised by nobles, clergy, and the official classes. As usual their agitation was successful. The clergy soon induced the pious king to grant them a formal exemption. One after another most of the powerful corporations, the *pays d'états*, and many of the larger towns, arranged to pay a commutation in place of a direct assessment.

The *dixième* was abolished in 1717, but as soon as war began its revival was at once considered necessary. Thus it was reimposed from 1733-1736 for the war of the Polish Succession, and again from 1741-1749 for the war of the Austrian Succession. The expenditure in this latter war was enormous; and though the military expenses were reduced after the peace of Aix-la-Chapelle, the burden of interest on loans had so enormously increased that MACHAULT, the controller-general, found it impossible to conduct the government without some other direct tax in addition to the TAILLE and the CAPITATION. But the *dixième* was still detested by the privileged orders. It had always been regarded as peculiarly a war tax, and the king had formally promised its abolition on the termination of hostilities. In these circumstances Machault determined to get rid of the name *dixième*, but to keep the tax itself while reducing the nominal charge by a half. He reckoned that if the exemptions and commutations were abolished the *vingtième* would bring in almost as much as its predecessor, and that its collection in time of peace would render possible the gradual reduction of the public debt.

Accordingly in May 1749, a royal edict substituted the *vingtième* for the *dixième*, and ordered its imposition upon all classes, privileged and non-privileged. On the outbreak of the Seven Years' War in 1756 a second *vingtième* was imposed, and in the later years of the war a third, but this was abolished in 1764. The *vingtièmes*, though always unpopular, were undoubtedly the fairest of the direct taxes in France. Adam SMITH (bk. v. ch. ii.), in discussing the reform of French finance, suggests the abolition of the TAILLE and the CAPITATION and the collection of an equivalent revenue by increasing the *vingtièmes*. Undoubtedly such a measure would have remedied some of the chief grievances of the lower classes. But it would be a mistake to suppose that the equality of incidence prescribed by the edict of 1749 was carried out in actual administration. The clergy were successful in maintaining the exemption they had enjoyed from the *dixième*, and the *pays d'états* and many corporations succeeded, after a lengthy struggle, in securing their right to compound, and their composition was far below their real obligations.

The only incomes which were at all regularly taxed were those derived from real property, and Adam Smith compares the *vingtièmes*, which should have been an INCOME TAX, to the English LAND TAX as settled under William and Mary. But perhaps the worst abuse arose from the private negotiations by which the nobles secured very advantageous terms from the royal officers. CALONNE admitted that the tax would have brought in twice as much but for the favour accorded to the nobles. The letter from a noble to the intendant of his district has been frequently quoted: "Your sensitive heart will never allow a father of my rank to be strictly taxed for his twentieths like one of the common people." Thus the principle of inequality, which in France seemed to be irresistible, succeeded in affecting a tax which had been originally imposed with the greatest parade of equality.

[Clamagéran, *Histoire de l'Impôt en France*, tome III.—Gasquet, *Précis des Institutions de l'Ancienne France*.—Adam Smith, *Wealth of Nations*, bk. v. ch. ii.] R. L.

VIOLET, THOMAS (fl. 1635-1662), was a 17th century free trader. The *Advancement of Merchandise* (1651), republished as *Mysteries and Secrets of Trade Affairs* (1653), was, like Potter's *Humble Proposals* (1651), dedicated to the council of trade whose deliberations he had, since the 20th August 1650, been ordered to assist. The cardinal principles of his book—"Let every man come in to trade according to their skill,"—"Let no man have a greater privilege than another"—were aimed at the privileged trading companies whose privileges, he said, raised imports and exports some 30 per cent in price, and thereby impoverished "the general" (consumer) "for the benefit of the few" (producers), and enabled foreigners to undersell English producers.

The reasoning was inspired by Sir E. Sandys (1604) (*Journal of House of Commons*, i. 218), who was director of monopolising companies most of his life, and by MISSELDEN who denied that

exclusive privileges meant monopoly (*Free Trade*, 1622); I. R.'s *The Trades Increase* (1615), p. 51, and Brent's *Discourse* (1645), anticipated Violet's conclusions. Three extensions of these principles were more or less original: (1) the abolition of "alien customs"—a device tried in 1539 (Schanz, *Englische Handelspolitik*, vol. i. pp. 86, 372); (2) the plantation of foreign capitalists and artificers, and their NATURALIZATION (*q.v.*), with power to buy land—this scheme was inspired, not by Francis Bacon, whose suggestions were dictated by an old-world contempt for traders (*Works*, ed. Spedding, vi. 449), but by those twin panegyrics on trade, H. ROBINSON'S *England's Safety in Trades Encrease* (p. 18) and L. ROBERTS' *Treasure of Traffike* (p. 14); (3) his policy of "free ports," whence imports could be re-exported without duty, had been anticipated by James I.'s and Charles I.'s dispensations (Misselden's *Circle of Commerce*, pp. 121, 127; 16 Car. I. c. 25, 29, 31), and by Robinson's *Briefe Considerations* (1649), and MUN'S not yet published *English Treasure by Foreign Trade* (p. 21), and was endorsed by B. W.'s *Free Ports* (1652), the author of *The Merchants' Remonstrance* (1659), and in a tentative way by the legislature in 1656 (Scobell's *Parliament Acts*, p. 388) and 1662 (14 Car. II. c. 11, §§ 25, 27). MADDISON (1655), like Robinson in his earlier works, also urged free ports, but not for aliens. The object of this policy was to divert the carrying trade from Holland.

In advocating the prohibition of or high duties on imported luxuries, a political lent, a bank, and mercantile courts, he followed ROBINSON (*q.v.*), but his scheme for the latter is more matured than those of Robinson, Roberts (1641), Philopatris (1651), LAMBE (1657), the author of *The Merchants' Remonstrance* (1659), or CRADOCKE (1660), and may be compared with CHILD'S scheme.

He also wrote pamphlets, *e.g. Humble Declaration* (1643), *Proposals* (1656), *True Discovery* (1659), *Appeal to Cæsar* (1660), in support of the most reactionary bullionism; and in these he often borrows the language of MALYNES. Not that he did not know better (Cal. of State Papers, Dom. Ser., 1651-52, p. 25), but penal laws against melting down and exporting bullion had been meat and drink to him. Persecutor by taste—whether of Jews or the East India Company—and goldsmith by trade, he had smuggled bullion (*ib.* 1661, p. 13), then prosecuted his fellow-smugglers in the Star Chamber (1635-43), and had played these same tricks under the protectorate (*ib.* 1659, p. 273), and his sinister advocacy of bullionism—including royal dispensations and Star Chamber prosecutions—in his *Appeal to Cæsar* (1660) doubtless contributed to the anti-bullionist reaction of 1663. Like other bullionists of that date he wished also to penalise the export of corn, wool, leather, munitions of war, etc. His resistance to milled coin, *Answer to Libels of Blondeau*, 1653, and his advocacy of royal exchangers (see EXCHANGER ROYAL), and private coinages of copper, were merely interested.

[SNELLING, *View of Silver Coin*, pp. 43, 44. *View of Copper Coin*, p. 35.] J. D. R.

VIRGA. The steward of a MANOR, when admitting a new customary tenant, usually handed to him a rod (*virga*), received from the out-going tenant, as a symbol of the transfer of rights, and an entry being then made in the court roll, the transaction was complete. This custom has descended to modern times. R. H.

VIRGATE. One-fourth of a HIDE, which was the Domesday unit of assessment. The hide cannot be viewed as a measure of surface of land, for it really expressed the value as regards taxation of that portion of 120 acres which was in cultivation during the current year. This would vary according to the mode of working the land. Under the two-field system it may be regarded as the tax value of sixty acres. Under the THREE-FIELD SYSTEM (*q.v.*) it would be the equivalent on eighty acres. The share of pasture land annexed to each holding is thus not reckoned in the acreage. An average virgate was therefore about thirty acres scattered in strips over the common fields of a manor; but there were great variations in some places. It was the usual holding of a VILLEIN. From fifteen to twenty acres of it would be ploughed each year, and a proportion of the pasture land and waste would be held with it. R. H.

VIRGILIO, JACOPO (1824-1891). Virgilio taught for many years at the technical high school of Genoa, and founded and directed the higher school of commerce in that city.

Virgilio left several economic works—chiefly practical in nature; of these the principal is on emigration; he advocates spontaneous and individual emigration, which he considers very advantageous, and he shows the objections to the steps taken by governments to prevent emigration. In another work on the fundamental conception of economics, he combines a dissertation on the theory with the modern scientific train of thought, giving especial importance to the inductive method.

Virgilio in his other works discusses the merchant navy, railways, and the history of trade with much ability.

Delle migrazioni transatlantiche degli italiani, 1868.—*La questione dell' emigrazione*, 1874.—*Principii di economia politica*, 1865-66.—*Concetti fondamentali della scienza economica*, 1882.—*Storia del commercio*, 1891. U. R.

VIRGINIA COMPANY, THE. This company took its origin from a charter granted by Queen Elizabeth to Walter RALEIGH, in 1584. The charter authorised him "to discover such remote heathen and barbarous lands, not actually possessed by any Christian prince nor inhabited by Christian people, as to him. . . shall seem good," with licence to remain there and to fortify them, notwithstanding the statutes against subjects departing the realm. Full licence was given "to take or lead such of our subjects as shall willingly accompany him," and to employ such shipping, etc., as might be necessary. Enjoyment was granted to Raleigh and his heirs of "all the soil of such lands or towns in the same," the fifth part of the gold

and silver obtained being reserved to the crown. The land was to be held by homage. The conception of "Greater Britain" was involved in the clause conceding to the settlers and their children "all the privileges of free denizens and persons native of England." The widest legal jurisdiction over life and property was granted to Raleigh and his heirs. In a word, a tributary kingdom was created. Armed with these prerogatives Raleigh despatched two vessels on a voyage of discovery in the spring of 1584. They took possession of the island of Roanoke, five miles from the coast of North Carolina, and returned in September with a glowing account of their acquisition. Raleigh thereupon equipped an expedition consisting of "a fleet of seven sailes with one hundred householders and many things necessary to begin a new state," which left Plymouth in April 1585 under the celebrated Sir Richard Grenville. The territory to be colonised was already designated by the name of Virginia, as a compliment to the queen. The settlers disembarked at Roanoke, and explored the coast of the mainland, but scarcity of provisions and the hostility of the natives caused them to re-embark for England with Sir Francis Drake, who at the head of an English fleet anchored at the island in June 1586. In 1587 Raleigh made an effort to retrieve this disaster. He granted a charter of incorporation to thirty-two persons, nineteen of them merchants of London, under the style of "Governor and Assistants of the city of Raleigh in Virginia." His purpose was to establish a colony at Chesapeake bay, and 150 settlers were despatched on board three ships. They returned to Roanoke, intending to pick up some men who had been left there by Sir R. Grenville, and with them to proceed to Chesapeake Bay. The men were not to be found, and after a sojourn at Roanoke of more than a year this colony was massacred by the Indians. Thus ended the Virginia Company. Its work was afterwards taken up with more success by the London Adventurers' Company, called also the South Virginia Company, which received a charter from James I. in 1606. The rest of Virginia—at this time the name assigned to the vast territory between the thirty-fourth and forty-fifth degrees of north latitude—was assigned to another chartered company called the PLYMOUTH ADVENTURERS. The modern Maryland, Virginia, and Carolina fell to the first—Pennsylvania, New Jersey, New York, and New England to the second company.

[D. Macpherson, *Annals of Commerce*, London, 1885, vol. ii.—E. Edwards, *Life of Sir W. Raleigh*, London, 1888, vol. i.—J. A. Doyle, *The English in America*, London, 1882, vol. i.—G. Bancroft, *History of the United States*, New York, 1884, vol. i.—J. Winsor (ed.), *History of America*, London, 1886, vol. iii.—G. Cawston and A. H. Keane, *The early Chartered Companies*, London, 1896.] I. S. L.

VIRICULTURE. Under this name M. de Molinari proposes the foundation of a new branch of science to be based on data provided both by moral sciences such as economics, and by natural sciences such as biology. This word has scarcely yet hitherto been used in French; it is formed on the model of such words as *agriculture*, *apiculture*, *viticulture*, etc., which are often met with in French literature.

Premising that we now witness a phenomenon exactly opposite to that which excited the fears of MALTHUS, namely the stationary or even decreasing tendency of population in several nations of Europe, accompanied by a parallel tendency towards the physical and moral deterioration of the race, M. de Molinari suggests that the threefold object of this new science of the cultivation of man ought to be the investigation and study of the means by which—(1) the numbers of population might be adjusted to its means of subsistence, without legally interfering with liberty of marriage and of sexual intercourse; (2) the progress of human deterioration might be arrested, and the standard of the moral and physical qualities of mankind might be raised; and (3) prostitution might be suppressed, or at least circumscribed within the narrowest possible limits.

[G. de Molinari, *La Viriculture*, Paris, 1897.] E. Ca.

VISA. The financial expedient known as the *visa* was only brought into operation after the downfall of John LAW. It was a violent reaction from his policy. The decree which established it appeared 26th January 1721; PÂRIS DUVERNEY was entrusted with its execution. He had, the year before, in 1720, sought to undermine the SYSTÈME, and to compete with it by establishing the *anti-système*, but, by an arbitrary act, Law had absorbed this to the advantage of the *système*. Hence the natural animosity of Pâris Duverney to Law can be understood, though he could not show this till the removal of Law from France left him a free field.

The *visa* consisted in making an inventory of every description of the property of those who, either directly or indirectly, had shared in the profits of the *système*. It was needful to trace their right of possession back to its source, and to classify the property according to this complicated investigation.

It was spoliation legally organised, rigorously carried out, or rather, what was worse, under cover of protection and favouritism.

The decree of 26th January 1721 ordered that all the contracts for income from the state—both perpetual and life annuities—the shares of the India Company, all the certificates of bank accounts, accounts of deposits, all the bonds, contracts for annuities, as well as the notes of the royal bank, in fine, all the proofs of personal property created by the *système*, should,

within two months, a time which might be extended to the 30th June, be presented before a commission to be appointed by the king. The accounts which were rendered from the 1st to the 15th of July were, as a commencement, to be reduced by a third; those which were rendered from the 16th to the 31st of July by two-thirds. If not presented before the last date mentioned they lost all value.

Every one was obliged to declare by what title they had acquired the securities, and what value they had given in exchange for them. As may be supposed, a severe drop in prices followed immediately. The shares of the India Company, which, in 1720, had been worth 27,000 livres, fell to 30 livres, and even, it is said, to six livres, the nominal value being 750 livres. Still Pâris Duverney was not satisfied.

The *Hommes Nouveaux* (*les Mississipiens*) might escape by concealing their wealth.

The notaries were obliged, within a month, to produce copies of all contracts passed since 1st July 1720. As gold and silver retained their value, what was held thus could only escape by being carried out of the country. Denouncements were frequent, and the property was often confiscated before crossing the frontier.

This was to the advantage of the countries north and east of France, where many people prudently sought a refuge for themselves and their property. Law and his *système* met, as may be seen, their match in Pâris Duverney.

The depositions before the commission actually reached 511,009 in number, and in value, 3,060,474,441 livres, of which amount 2,233,786,719 was in Paris. According to their character they were divided into five categories, each of which was further divisible into fifteen classes, according to the manner in which the property had been acquired.

All, more or less, were submitted to reduction according to a scale—small sums less than large, not so much out of consideration for small properties, but because the large were easier to get at, and brought more profit to the operation of the *visa*.

Finally, the above-mentioned sum was reduced to 1,613,911,481 livres, the final amount. But the reductions were far from being proportionate. The figures varied from the absolute admission to the absolute rejection of the claim.

To crown the work of Pâris Duverney, and to reach those who had hitherto been able to escape, the council of state, on 15th September 1722, issued a decree enforcing an additional poll-tax, namely the levy of a fine on all immovable property belonging to the *hommes nouveaux*, which produced 187,893,661 livres. The expenses of the *visa*, another loss to the country, were 9,045,874 livres.

[Du Hautchamps, *Histoire du système des finances sous Louis XV.*, 6 vols. 12mo, 1739, The Hague.—Du Hautchamps, *Histoire générale et particulière du visa*, etc., 9 vols. 12mo, 1743, The Hague.—A. Thiers, *Histoire de Law*, Paris, 1858 (last edition); 18mo.—Alph. Courtois, *Hist. des banques en France*, 2nd ed., Paris, 1881 (pt. i.).]

A. C. f.

VISA (as to a passport). Some countries (*e.g.* Russia) require that passports for the use of travellers wishing to enter their territory should be certified by their minister or consul. The minister or consul's certificate on the passport is called the "visa." E. S.

VISSERING, SIMON (1818-1888), born at Amsterdam, studied law and philology at Amsterdam and Leyden (1835-42); for some time practised as a lawyer, was editor of a newspaper (1847-48), and in 1850 was appointed professor at the university of Leyden; during two years, 1879-81, he stood at the head of the department of finances.

His first economical work was a series of articles on the anti-corn-law movement in England, which he thoroughly approved; when the reform was accomplished he wrote its history.

His principal work is *Handboek voor practische staathuishoudkunde* (Manual for Practical Economy), Amsterdam, van Kampen en zoon, 1860-65, 1872, and 1878. In this and his other writings he shows himself an adherent of the school of Bastiat, whose theories we meet with as well in the speech which Vissering delivered in 1850 on "Liberty in Economy," as in his last article "Prosopographia socialistica," combating modern state-socialism. A. F. v. L.

VIVANT DE MÉZAGUES. See MÉZAGUES.

VIVES, JUAN LUIS (1492-1540), one of the most notable humanists (see HUMANISM) of the 16th century, deserves a place in the history of economic thought for his treatise *De subventione pauperum*, written in 1524 and printed in 1532.

In this tractate, addressed to the magistrates of Bruges, who had consulted him on the subject, he proposed a complete reform of the existing methods of poor relief. The destitute should be properly registered and classified; those unable to work should be provided for in well-administered hospitals and almshouses; those able to work should be found employment; and mendicancy should be prohibited. The work is significant of the new current of thought on the subject of the relief of the poor which was making its way in western Europe, and itself contributed to still further stimulate the work of reform.

The dedicatory letter is dated 6th January 1526 (*i.e.* 1525). The *De subventione pauperum libri duo*, was printed at Lyons in 1532. It will be found in both the collected editions of Vives' *Opera*, that in 2 vols., Basel, 1555 (ii. 889-922) and that in 7 vols., Valencia, 1782-1790 (iv. 420-494). It was translated into French, Italian, and Spanish: a modern reprint of the Spanish version

is given in *Biblioteca de autores españoles*, vol. lxv. (1873).

[Of modern writers, the first to call attention to Vives' tractate was Franz Ehrle, in his *Beiträge zur Geschichte u. s. w. der Armenpflege* (Freiburg, i. B. 1881), who is followed by Ashley, *Economic History*, i. pt. ii. 343. The best biography of Vives is that by Rudolf Heine, prefixed to *Vives: Ausgewählte pädagogische Schriften* (*Pädagogische Bibliothek*, xvi., Leipzig, 1882). The traditional account of Vives' residence in England is there subjected to a necessary criticism]. W. J. A.

VIVORIO, AGOSTINO (1744-1822). An abbé, born at Vicenza. He studied mathematics, philosophy, and economics, and was secretary of the Italian scientific society called *Dei Quaranta*.

Vivorio was the author of numerous pamphlets on various subjects, among others one on corporations, written for the prize competition at the academy of Verona (see MARACHIO). In this Vivorio briefly and clearly discusses the evils of corporations; he recognises their merits in the past, and the good side they still preserved, observing, however, that this was entirely destroyed in his day by abuses and disadvantages. He concludes by advocating the absolute abolition of all corporations, and granting the greatest freedom in the pursuit of all industries.

Although this work is far inferior to that of VASCO, it deserves notice for its clearness and fluent explanations.

Sopra i corpi delle arti—risposta ad un quesito accademico, 1792 [Alberti, *Le corporazioni d' arti e mestieri, etc.*, 1888]. U. R.

VOLTAIRE, FRANÇOIS MARIE AROUET DE (1694-1778). In his long and active literary career Voltaire, whose life is too well known to require narration here, often touched on topics connected with economics. He had never studied them, however, systematically, and simply expressed the superficial commonsense views of his times, upholding with the same sparkling wit both truth and fallacy. Writing under the impulse of the moment, he frequently contradicted his former assertions. Thus we find him upholding the theory of the balance of trade and of the necessity of preventing the export of money, though at other times he remonstrated against trammels imposed on the corn trade. He saw no great harm in alterations of the currency, and only insisted that they ought to be gradual, as a nation which is its own creditor does not, according to his views, impoverish itself. Heavy debts, as well as a free spending of public and private money, are incentives to industry. The two thousand millions of debts bequeathed by Louis XIV. to France, the ruin of many families, the resulting bankruptcies, and the excessive taxation, were simply the "misfortunes of a happy nation" (*Observations sur Law, Melon, Dutot, le Commerce, le Luxe, les Monnaies et les Impôts*). At other times he sneered at the enthusiastic promoters of population. "The principal point is not to have an excess of men, but to make those we have as little unhappy as possible" (article "Population" in the *Dictionnaire Philosophique*). With his strong sense of equity in administration, he consistently claimed an equitable apportionment of taxation, and became, towards the end of his life, a warm and sincere admirer of TURGOT: see in the *Correspondance* the letter addressed to the Abbé BAUDEAU in 1775, and in his poem, the *Épître à un Homme*, addressed to Turgot after his fall.

Only a few years before, in 1772, in a note appended to his satire *Les Cabales*, he had been very bitter against the ÉCONOMISTES (*q.v.*), calling them "people who, being bankrupt themselves, teach the art of becoming rich through trade, travel round the world without leaving their closet, and, never having owned a plough, fill our granaries with corn." It is also against them that, almost a quarter of a century before, he had composed his celebrated tale, *L'Homme aux quarante écus*; in fact, the only one of his publications on a distinctly economic subject. The dogmatic and often pompous and heavy style of the PHYSIOCRATS had probably bored him, as well as their abstract and subtle mode of reasoning. *L'Homme aux quarante écus*, directed against MERCIER DE LA RIVIÈRE'S (*q.v.*) *Ordre naturel et essentiel des sociétés*, is the history of the owner of a small estate yielding a net income of forty crowns a year, who has been frightened by the appearance of several edicts promulgated "by a few gentlemen who, having some leisure, have undertaken to govern the kingdom from their firesides." In the preamble they stated that the government "being by divine- and birth-right co-proprietor of his land, he at least owes it one-half of his income," and that "as all wealth proceeds from land, land is to bear the whole burden of taxation." Overflowing with wit and sarcasm, the book consists of conversations between the man with the forty crowns and the most motley succession of people, and, with the author's usual unfairness, is not free from misrepresentations and gross exaggerations of Mercier's real meaning.

In various passages of the *Dictionnaire Philosophique* (article on *Natural Law*), Voltaire, in the insulting controversial tone which he frequently adopted, rails at ROUSSEAU'S theories on the illegitimacy of private ownership in land. How little of an optimist he was may be gathered from his *Candide ou l'Optimisme*.

[On Voltaire's social and economic opinions see the article Voltaire in the *Nouveau Dict. d'Écon. Politique* (Paris, 1892), and on his *Idées Générales*, Faguet's *Études littéraires sur le dix-huitième siècle* (pp. 219-239).] E. Ca.

VOLUME OF MONEY. See MONEY.

VOLUNTARY DEED. In English law a promise not made for valuable consideration is said to be voluntary. Such a promise is not

legally binding unless couched in the form of a deed under seal. Even then it is not binding if made in restraint of trade. English courts do not enforce specific performance of a voluntary promise under seal, but the person claiming under such a promise has a remedy in damages.

F. C. M.

In case of the insolvency of the estate of a deceased debtor, persons claiming under voluntary deeds are postponed to creditors whose claims are supported by valuable consideration, but they are preferred to legatees.

A voluntary disposition of property, whether by deed or otherwise, may be declared invalid under the statute of 13 Elizabeth, if it was made with the intention of "delaying, hindering, or defrauding creditors." And under the Bankruptcy Act 1883, a voluntary settlement may be declared void: (*a*) if the settlor be adjudged bankrupt within two years from the date of the settlement; (*b*) if he be adjudged bankrupt within ten years from such date, unless he or his representative can prove that at the time of making the settlement he was able to pay all his debts without the aid of the property comprised in the settlement. Another statute of Elizabeth was, prior to 1893, interpreted as meaning that a voluntary conveyance was defeated by the subsequent conveyance of the same property to a purchaser for valuable consideration, but the Voluntary Conveyances Act 1893 has repealed this interpretation; a voluntary conveyance of land effected with a fraudulent intent may, however, still be defeated under the same statute. A deed by which property is conveyed or settled in contemplation of marriage is deemed to be made for valuable consideration.

E. S.

VON BIELFELD, JAKOB FRIEDRICH (1717-1770), belonged to a family of Hamburg merchants, and filled his sphere in a practical public life. As a young man he travelled through Holland, England, and France, and stayed at universities in these countries. In 1739 he received some notice from Frederick the Great, at that time crown prince, who shared his taste for the French language and literature, and was drawn by him into the circle of friends at Rheinsberg. Later he was employed by the king as a diplomatist, and in this capacity spent some time in London. In 1747 he was appointed curator of all the universities of Prussia by Frederick II.

In 1758 he withdrew to his country seat at Treben in the duchy of Altenburg, to devote himself quietly to literary work. The result of this was the publication, in French, of his *Institutions politiques*, 2 vols., 1760, a German translation of which appeared a year after, under the title, *Des Freiherrn von Bielfeld Lehrbegriff der Staatskunst*, 1761. This work is dedicated to the brother of the king, Prince August Ferdinand, whom Bielfeld had been summoned to teach. The author explained that he aimed at giving instruction to statesmen concerning the objects of their vocation, not only in the art of government, but in all things connected with political economy.

The subject of this clearly-written book was *Politische Oekonomie*, which expression appeared here for the first time in German literature (after the French *Économie politique*). It dealt almost exclusively with French authors, as VAUBAN, St. PIERRE, MELON, MONTESQUIEU, FORBONNAIS, DUTOT, Nichols (DANGEUL), etc. The practical details were drawn from the *Dictionnaire du commerce* of SAVARY. COLBERT was described as the "greatest financier in history." The predominating idea in the work appears in the following passage imbued with the theories of the MERCANTILE SYSTEM (*q.v.*). "The political system of Europe at the present day is such that one state can only raise itself at the expense of some other, either by conquest or by trade." In these matters German authors did not appear to Bielfeld to have any part. In the chapter on *Political Arithmetic* (see ARITHMETIC, POLITICAL), the ENGLISH SCHOOL is applauded for their labours in this science; particularly GRAUNT, PETTY, HALLEY, DAVENANT, HUME, etc. In this chapter two Germans are also mentioned, SÜSSMILCH and Kundmann. The *Institutions politiques*, soon translated into Russian and Italian, was an epoch-making work for German CAMERALISTIC SCIENCE, in so far as it drew this out of its national isolation and under the influence of foreign thought. The professor of cameralistic science at Frankfurt on the Oder, J. G. Darjes, wrote a preface to the second German edition of the work 1764. In a later edition, after his death, a third section on practical politics was added. He had foreshadowed the appearance of this in a concluding note to the second volume.

Bielfeld later published, *Lettres familières et autres*, 1763, and towards the end of his life issued a weekly periodical in German, entitled *Der Eremit*, Leipzig, 1767-1769.

["Éloge de Bielfeld," in *Nouv. Mémoires de l'Académie royale des sciences et belles-lettres, année 1770*, Berlin, 1772. — Roscher, *Geschichte der Nationalökonomik in Deutschland*, München, 1874. —*Allgemeine deutsche Biographie*, ii. 1875.]

A. O.

VOUCHER. See RECEIPT.

VUITRY, ADOLPHE (1803-1883), born at Sens, died at St. Donnin (Seine-et-Marne). He studied engineering first 1834, and afterwards changed his profession, graduating as doctor of laws 1838. He then entered the government employ, became governor of the bank of France 1863, president of the council of state 1864, chairman of the Paris, Lyons, and Mediterranean Railway 1871.

He retired from public life in 1870, and devoted his leisure to writing the historical works on the finance of France mentioned below, *Études sur le régime financier de la France avant la Révolution de 1789*, 3 vols. 8vo, 1876-1883, ending with the death of Charles V. (1380), he was not able to carry this to the accession of Louis XI. (1462) as he had planned. *Le désordre des finances et les excès de la spéculation à la fin du règne de Louis XIV. et du commencement du règne de Louis XV.*, 18mo, 1885 A selection from his numerous reports and speeches was published in 1887.

A. C. f.

W., C. See S. W. GENT.
W., J. See WORLIDGE, JOHN.
W., S. See S. W. GENT.
W., S. See STAFFORD, W.

WAGER POLICY. A policy of insurance on the life of a person in which the insured has no insurable interest is called a wager policy, and is void by virtue of a statute passed in 1774 (14 Geo. III. c. 48) (see INSURANCE, LAW AND PRACTICE OF LIFE). E. S.

WAGES.

Wages and Prices of Commodities, p. 634; Wages Fund, p. 636; Wages, Nominal and Real, p. 639; Wages, Purchasing Power of, p. 641; Wages Statistics, p. 643; Wages, Statistics of (in United States of America), p. 643; Wages of Women, p. 646.

WAGES AND PRICES OF COMMODITIES. In all cases wages quoted are what were earned by workers for work done, free from the influences of the allowance system, as far as it is possible to ascertain this. The act 9 Geo. I. c. 7 (1722), prohibited relief to those who refused to enter a workhouse, but the 36 Geo. III. c. 23 (1795), repealed that prohibition, and ordered that any industrious poor person should be entitled to receive relief at his own house; overseers were directed to give such relief as any justice or justices of the peace might order. When prices rose during the time of the CORN LAWS (sliding scale introduced by 9 Geo. IV. c. 60 (1828); importation having been generally prohibited by Robinson's Act, 1815; Corn Laws repealed

WAGES AND PRICES OF COMMODITIES, ETC., DURING THREE IMPORTANT EPOCHS OF ENGLISH (2) The transition period from domestic to mechanical production, and the times of the corn laws

	Descriptions and Occupations.	Period I.			Period II.			
		1720-1750.	1770.	1787.	1800.	1804-1808.	1808-1815.	1815-1823.
1	Woollen cloth weaver—Hand-loom—men	13s.-15s.	18s.-21s.	15s.-17s.	14s.-16s.	14s.-16s.	16s.-22s.	15s.-20s.
2	Power-loom—women	..	..	..	..	..	..	..
3	Worsted stuff weaver—Hand-loom	11s.-13s.	12s.-15s.	10s.-12s.	11s.-13s.	17s.-20s.	24s.-32s.	20s.-24s.
4	Power-loom	..	..	..	..	..	..	..
5	Woollen and worsted spinners—single wheel—(by hand) women	8s.-9s.	9s.-10s.	8s.-9s.	9s.-11s.	9s.-11s.	..	..
6	Woollen spinners—jenny—women	..	..	..	..	..	13s.-14s.	13s.-14s.
7	Mule—men	..	..	..	..	..	..	..
8	Worsted spinners—frame—spinners and drawers, women and girls (full-timers)	..	..	..	..	..	..	..
9	Woollen and worsted spinners (by hand)—children, 8-13 yrs. old	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	4s. 6d.-5s.6d.
10	Spinners, doffers, etc. (half-timers at machinery)	..	..	..	..	..	..	..
11	Woolsorters	24s.-26s.	24s.-26s.	26s.-28s.	26s.-28s.	28s.-30s.	28s.-30s.	28s.-30s.
12	Woolcombers (by hand)	15s.-18s.	16s.-20s.	16s.-20s.	18s.-24s.	16s.-24s.	16s.-24s.	16s.-24s.
13	Men—feeders of machine combs, etc.	..	..	..	..	..	..	..
14	Dyers—ordinary hands, slabbers, etc.	15s.-17s.	18s.-19s.	18s.-19s.	18s.-20s.	18s.-20s.	18s.-20s.	17s.-20s.
15	Cotton weaver (by hand)	8s.-9s.	8s.-9s.	8s.-9s.	8s.-9s.	9s.-10s.	12s.-14s.	14s.-18s.
16	(By power-loom)	..	..	..	..	..	..	..
17	Carpenters	20s.-23s.	20s.-23s.	20s.-23s.	20s.-23s.	23s.-24s.	23s.-24s.	23s.-24s.
18	Masons	22s.-24s.	22s.-24s.	22s.-24s.	22s.-24s.	23s.-26s.	23s.-26s.	23s.-26s.
19	Boot and shoe makers	20s.-23s.	20s.-23s.	20s.-23s.	23s.-26s.	23s.-26s.	23s.-26s.	20s.-23s.
20	Journeymen tailors (full week's work)	17s.-20s.	17s.-21s.	19s.-23s.	22s.-26s.	23s.-27s.	23s.-27s.	21s.-26s.
21	Colliers	12s.-15s.	12s.-15s. 7d.	12s.-15s.	14s.-16s.	14s.-16s.	14s.-16s.	16s.-18s.
22	Agricultural labourers	8s.-10s.	8s.-10s.	8s.-10s.	8s.-10s.	9s.-10s.	9s.-10s.	9s.-10s.
23	Common labourer (not agricultural)	11s.-14s.	11s.-14s.	11s.-14s.	13s.-15s.	13s.-15s.	13s.-15s.	13s.-15s.

1846), and taxation was increased to meet the ruinous cost of the great French war, wages were not allowed to rise; accordingly, the lot of workers was most deplorable. Magistrates took a merciful and charitable view of their powers, and published scales of relief. The allowance system was very general from about 1795 to 1834, until the enactment of the new poor law. The economic influence of the ALLOWANCE SYSTEM (*q.v.*), intended to assist the industrious poor, was very injurious to them. Wages actually paid able-bodied men were frequently only five or six shillings a week, but relief to the extent of four, five, six, or seven shillings, according to the size of a family, would be given out of rates. The wages quoted are not pauperised wages.

Wages in the woollen and worsted trades are quoted at length, because, together with agriculture, before the industrial revolution they employed three-fourths of the productive classes; their history affords a fair comparison of wages in the days of domestic production with those now ruling under the factory system.

It is not possible in a statement of this description, carried over a period now approaching two centuries, necessarily by different hands, following perhaps different methods, to speak with absolute certainty, but every effort has been made by personal inquiry and by the use of official sources, to obtain accurate information.

INDUSTRY. (1) Before the industrial revolution, in the days of domestic industry (1720-1780). (1800-1845). (3) The modern epoch of free trade and factory production (1845-1898).

			PERIOD III.						For notes see next p.
1823-1830.	1830-1836.	1836-1845.	1845-1855.	1855-1865.	1865-1870.	1870-1875.	1886.	1898.	
15s.-18s.	14s.-17s.	14s.-17s.	14s.-16s.	14s.-16s.	..	..	..	..	A
..	..	..	..	..	one loom 12s.-14s.	one loom 13s.-15s.	one loom 13s.-14s.	12s.-14s.	A
17s.-20s.	11s.-14s.	11s.-12s.	..	..	..	..	..	..	B
..	..	..	one loom 11s.-12s.	one loom 11s.-12s. 6d.	two looms 14s.-16s.	two looms 15s.-18s.	two looms 13s.-16s.	13s.-16s.	B
..	..	..	..	..	..	..	..	..	C
11s.-12s.	8s.-10s.	7s.-9s.	..	..	..	..	..	..	C
24s.-26s.	24s.-26s.	24s.-26s.	26s.-29s.	27s.-30s.	28s.-31s.	28s.-31s.	28s.-30s.	27s.-30s.	C
..	..	..	..	8s.6d.-10s.6d.	9s.-11s.	9s. 6d.-11s. 6d.	9s.-11s.	10s.-18s.	C
4s. 6d.-5s.6d.	4s. 6d.-5s.6d.	..	..	..	..	..	..	..	C
..	..	..	..	2s. 6d.-3s. 6d.	2s. 6d.-3s. 6d.	3s.-4s.	3s.-4s.	12s.-15s.	C
28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	28s.-30s.	3s.-5s.	D
16s.-24s.	16s.-24s.	14s.-24s.	..	..	..	..	..	32s.-37s.	D
..	..	..	..	15s.-17s.	16s.-18s.	16s.-18s.	16s.-18s.	22s.-27s. Women 13s.-16s.	E
16s.-18s.	16s.-18s.	16s.-18s.	17s.-19s.	17s.-20s.	17s.-20s.	19s.-22s.	17s.-20s.	18s.-22s.	E
14s.-18s.	..	..	..	..	..	..	..	..	E
..	..	..	four looms 13s.-15s.	four looms 14s. 6d.-16s.	four looms 15s.-17s.	four looms 16s.6d.-18s.6d.	four looms 15s.-17s. 6d.	15s.-17s. 6d.	E
23s.-24s.	23s.-24s.	24s.-26s.	24s.-26s.	26s.-28s.	28s.-30s.	32s.-34s.	30s.-32s.	32s.-34s.	K
23s.-26s.	23s.-26s.	26s.-28s.	26s.-28s.	28s.-30s.	32s.-34s.	34s.-36s.	32s.-34s.	34s.-36s.	K
21s.-23s.	21s.-23s.	24s.-26s.	24s.-26s.	24s.-26s.	25s.-28s.	26s.-29s.	26s.-29s.	4½d. to 6½d. p. hour, wk. of 56 hours.	F
21s.-26s.	20s.-25s.	20s.-25s.	21s.-26s.	22s.-27s.	22s.-27s.	23s.-30s.	22s.-29s.	At end of 1898. Lower at end of 1895.	K
16s.-18s.	16s.-18s.	16s.-18s.	17s.-20s.	18s.-21s.	21s.-23s.	24s.-28s.	18s.-22s.	27s.-31s.	G
9s.-10s.	9s. 6d.-11s.	10s.-12s.	10s.-12s.	12s.-14s.	12s.-14s.	12s.-16s.	12s.-16s.	12s.-16s.	H
13s.-15s.	13s.-15s.	15s.-18s.	16s.-19s.	16s.-19s.	17s.-20s.	18s.-20s.	17s.-20s.	18s.-22s.	H

WAGES AND PRICES OF COMMODITIES, ETC., DURING

	Descriptions and Occupations.	PERIOD I. 1720-1750.	1770.	1787.	PERIOD II. 1800.	1804-1808.	1808-1815.	1815-1823.
24	Wheat—mean av. per qr.	Average 51 years, 1700 to 1750, Highest 35s. 9d. Lowest 81s. 9d. 22s.		45s.	127s.	80s.	103s.	67s.
26	Butchers' meat (beef), per lb.	3½d.-4d.	3½d.-4d.	4d.-4½d.	6½d.-7½d.	9½d.-10½d.	9½d.-10½d.	9d.-9½d.
27	Fresh farmers' butter, per 16 oz.	6d.-6½d.	6d.-6½d.	7d.-8d.	12d.-14d.	14d.-15d.	16d.-17d.	14d.-16d.
28	New milk, per qt.	1d.-1½d.	1d.-1½d.	1d.-1½d.	2d.-2½d.	2d.-2½d.	2d.-2½d.	2d.-2½d.
30	Eggs.—No. for 1s. Summer	30-36	30-36	30-36	24-30	..	..	..
	Winter	16-20	16-20	16-20	12-14	..	..	..
32	Rents.—Workmen's cottages, per yr.	With garden plot 40s.-50s.	50s.	£3-£4	£4-£5	£4-£5	£5-£6	£4-£5
33	Agricultural rents, per ac.—Farms, fair average land	10s.-15s.	..	..	..	..	40s.-45s.	..
34	Oats per qr.	1750-1780 Av. abt. 15s. Highest 17s. Lowest 13s.	..	20 yrs., 1780-1799 Av. 18s. 8d. High. 27s. 6d. Low. 13s. 2d.	..	20 yrs., 1800-1821 Av. 29s. 4d. High. 44s. 6d. Low. 19s. 6d.	..	..
35	Cheese, per lb.	3½d.-4d.	3½d.-4d.	1½d.-5½d.	7d.-7½d.	7d.-7½d.	7d.-7½d.	8d.-8½d.
36	Board of working man.—Lodging, food, and washing, per wk.	5s.-6s.	5s.-6s.	5s.-6s.	7s. 6d.-9s.	..	..	..
37	English wool, per lb.—Lincoln half hog.	1703-1790 Highest 13d. Lowest 6d. Av. 8½d.	..	..	1791-1808 Highest 16d. Lowest 9½d. Av. 12d.	..	13¾d.	16¾d.
38	National Debt	1702 £12,767,225	..	1760 £102,014,018	..	..	..	..
39	Poor rate.—Per head of population—England and Wales	1760, 3s. 7d.	..	1785, 5s.	..	1802, 9s.	1813, 13s. 6d.	..

A Production by power-loom is about 110 yards cloth, by hand-loom it was about 50 yards.

B Production by power-loom, for woman minding two looms, will now be about six times more than by hand-loom. The high wages of weavers from 1800 to 1830 were occasioned because the new spinning machinery had increased supply of yarn at much greater rate than weavers could weave it, hence the enhanced demand for weavers, and increased value of their labour.

C It is difficult to estimate the increased production of machinery as compared with the primitive single wheel of 130 years ago. The number of spindles per frame or mule is being constantly increased, so also is speed. Nine shillings paid in wages will now produce at least sixty times more yarn than could be spun for same amount of wages 100 years ago. Children 100 years ago would work 10 hours a day for 4s. to 5s. 6d. a week, now they work 5 hours a day for 8s. to 4s. Production will be forty times greater for shorter hours than it was 100 years ago for longer hours.

D Woolsorting is, and always must be, a manual operation. Wages fluctuate very little.

E As in spinning, it is difficult to estimate increased production of machine wool combs. Sixteen shillings paid in wages will now produce sixty times more than the same amount of wages produced some fifty years ago. Machinery has reduced woolcombing from a skilled to an unskilled industry. Wages have fallen accordingly.

F Boot and shoe manufacture is now a "factory" industry. Before use of machinery a workman would

WAGES FUND. The theory of a wages fund, was during fifty years, 1820-1870, the accepted doctrine of English economists. The prevalence of this doctrine during this period contributed to a great extent to render the doctrines of political economy unpopular with the working classes; for, if the teaching of political economy on the subject of wages were true, any attempts which the working-class might make to gain better terms from their employers by means of trade-unions, or otherwise, were either fore-doomed to failure, or, if successful, did but benefit one particular class or section of the labouring classes at the expense of all the rest. The doctrine, as originally stated by MALTHUS, took the following form: "It may at first appear strange, but I believe it to be true, that I cannot by means of money raise the condition of a poor man, and enable him to live much better than he did before without proportionately depressing others in the same class. . . . But if I only give him money, supposing the produce of the country to remain the same, I give him a title to a larger share of that produce than formerly, which shows he cannot receive without diminishing the share of

THREE IMPORTANT EPOCHS OF ENGLISH INDUSTRY.—*Continued.*

			PERIOD III.						
1828-1830.	1830-1836.	1836-1845.	1845-1855.	1855-1865.	1865-1870.	1870-1875.	1886.	1898.	
67s.	51s. 6d.	..	Av. 20 yrs., 1845-1864, 47s. 6d. per quarter. High. 74s. 8d. Low. 38s. 6d.	..	..	16 yrs. 1870-1885 Av. 47s. 4d. High. 58s. Low. 32s. 10d.	Highest and Lowest Prices quoted are the Highest or Lowest Yearly Averages.	10 yrs. 1886-1895 Av. 29s. 8d. High. 37s. Low. 22s. 10d.	
8d.-8½d.	8d.-8½d.	6½d.-7½d.	7½d.-9d.	8½d.-9½d.	9d.-10d.	10d.-11d.	10d.-11d.	8½d.-9½d.	
12d.-13d. 2d.-2½d.	11d.-12d. 2d.-2½d.	10d.-11d. 2½d.-3½d.	12d.-14d. ..	13d.-15d. 2½d.-3½d.	13d.-15d. 3d.-4d.	15d.-17d. 3½d.-4½d.	14d.-17d. 3½d.-4½d.	14d.-17d. 3d.-4d.	L
.. ..	.. ..	20-24 10-12	.. ..	.. ..	16-18 6-8	14-16 6-7	13-16 5-7	13-16 5-7	I
£4-£5	£5-£6	£5-£6	£6-£8	£6-£9	£7-£10	£8-£12	£7-£11	£8-£12	
..	30s.-35s.	..	30s.-35s.	..	35s.-50s.	35s.-45s.	30s.-40s.	20s.-35s.	M
20 yrs. 1822-1841 Av. 23s. 3d. High. 28s. 2d. Low. 18s. 1d.	..	..	20 yrs. 1845-1864 Av. 22s. 9d. High. 28s. 8d. Low. 16s. 5d.	..	..	16 yrs. 1870-1885 Av. 23s. 10d. High. 28s. 10d. Low. 20s. 3d.	..	10 yrs. 1886-1895. Av. 17s. 10d. High. 20s. Low. 14s. 6d.	
7d.-7½d.	7d.-7½d.	6d.-6½d.	7d.-7½d.	7½d.-8½d.	7½d.-8½d.	8d.-9d.	8d.-9d.	7½d.-8½d. (1895)	
8s.-9s. 6d.	..	..	8s.-9s.	..	..	11s.-13s.	10s.-12s.	10s.-12s.	
12¼d.	13d.	13d.	12¼d.	1855-1865 Av. 19d. Highest 27d. Lowest 13d.	17d.	20¾d.	1880-1885 Av. 11½d. Highest 18d. Lowest 9¾d.	1890-1895 Av. 9½d. High. 10d. Low. 9d.	
1820 £834,900,000	..	..	1837 £787,529,114	..	..	1884 £748,548,798	1897 £644,909,847		
..	1830, 10s. 9d.	..	..	..	..	1881, 7s.	1885, 7s.	1897, 6s. 8¾d.	

produce about 450 pairs a year, now the average is 1800 pairs.

G Net earnings, West Yorkshire.

H The agricultural labourer was better off, because of common right, allotments, and other privileges, 100 years ago, with a third less wages than he gets to-day.

I The price of fowls has risen accordingly: 100 years ago the price of a fowl was 9d. to 12d., now it is 3s. to 3s. 6d., for table use, poulterers' prices.

K In trades where, since the repeal of the combination and conspiracy laws and alteration in the law of settlement, workmen have combined, wages have perceptibly risen. Carpenters, masons, tailors, and colliers are examples of such rises; wages have also risen since in other industries. The combination laws were repealed in 1825.

L The minimum may be taken as summer, and the maximum as winter prices.

It is difficult to give a table for vegetables and market garden produce. Before the industrial revolution workmen mostly grew their own supplies; retail prices are now, however, fully 200 per cent higher than consumers could buy at in the open market, direct from the grower, 100 years ago.

Wages in all cases stated are per week. The rates of wages quoted are mainly those prevailing in the North of England, principally in West Yorkshire and Lancashire.

M Rent of good farms in corn growing districts (1898).

others" (*Essay on Population*, bk. iii. ch. v. pp. 333, 334). The assumptions which Malthus here makes—(1) that a certain fixed proportion, and no more, of the total food produce of the country will go to the labouring classes; and (2) that that total food produce is practically a fixed amount, so that any increase in the demand for it will simply raise prices without calling out any fresh supply, grew out of and were justified by, the exceptional circumstances of Malthus's own time, but had by no means universal validity. It is further to be observed that Malthus restricted his reasonings to the food-supply of the wage-earning classes, and makes no attempt to explain the principles by which the proportion of food that fell to the wage-earning classes was determined. From Malthus the doctrine was taken over by James MILL, who, however, adopts it with two important modifications—(1) he substitutes capital for food in the reasonings which he borrows; and (2) he assumes that it is the amount of capital, meaning by this food, raw material, and instruments or machinery, devoted to productive purposes, which determines the share of the national wealth the labouring classes have to

divide. His doctrine takes thus the following form:—"Universally, then, we may affirm, other things remaining the same, that, if the ratio which capital and population bear to one another remains the same, wages will remain the same; if the ratio which capital bears to population increases, wages will rise; if the ratio which population bears to capital increases wages will fall" (*Elements of Pol. Econ.*, ch. 2, § 2). In a later section he gives a proof that "Capital has a less tendency than population to increase rapidly." J. S. MILL, in his *Principles of Political Economy*, adopts, but with further modifications, his father's doctrine, and gives its final shape to the wage fund theory. He lays it down (1)—bk. 1, ch. 5, §§ 1, 2, 3—"that industry is limited by capital, but does not always come up to that limit, while the increase of capital gives increased employment to labour without assignable bonds." (2) "It is not, however, all capital, *i.e.* all wealth saved and appropriated to reproductive employment, which constitutes the wages fund of a country, but that part only which is circulating as distinct from fixed, *i.e.* that part only which is destined for the direct purchase of labour"—bk. ii. ch. xi. § 1. (3) This being so, "wages depend mainly upon the demand and supply of labour; or as it is often expressed, on the proportion between population and capital. With these limitations of the terms, wages not only depend upon the relative amount of capital and population, but cannot, under the rule of competition, be affected by anything else. Wages, meaning of course the general rate, cannot rise but by an increase of the aggregate funds employed in hiring labourers, or a diminution in the number of competitors for hire; nor fall, except either by a diminution of the funds devoted to paying labour, or by an increase in the number of labourers to be paid" (*Principles of Political Economy*, bk. ii. ch. xi. § 1, 6th edition). These same principles furnish the basis of Fawcett's doctrine of wages both in his *Manual of Political Economy* (see especially bk. ii. ch. iv., where he discusses some of the objections which had been brought against the doctrine of a wages fund) and also in his *Lectures on the Economic Position of the British Labourer*. The first writer by whom the doctrine was attacked was Mr. F. D. Longe, who in a pamphlet entitled, *A refutation of the Wage Fund Theory of Modern Political Economy as enunciated by Mr. Mill, M.P., and Mr. Fawcett, M.P.*, pp. 9, 10 (Longmans, 1866), attempts to establish the following positions: (1) that wages do not depend on any merely mechanical cause, but that there is a "natural wage," and that wages may properly be described as "just or unjust," "fair or unfair," "reasonable or unreasonable"; and (2) pp. 22-48, that the theory of a wage fund is untenable because (*a*) the capital or wealth applicable to the payment of the wages of labour in a country, at any time or during any period, does not consist of a definite fund which is distinct from the produce of labour; (*b*) because the dependent or labouring population in a country at any time, or during any period, does not constitute a supply of labour, or body of labourers, among whom the average wage fund or capital of a country could be distributed by competition; (*c*) because the supposition that such wage fund would be all distributed among the labourers of a country by the competition of the buyers and sellers of labour, if allowed free operation, involves an erroneous notion of the demand and supply principle. Mill did not himself reply to Mr. Longe's attack, but in reviewing for the *Fortnightly Review*, May 1869, Thornton's work on *Labour and its Claims* (where much the same arguments as those advanced by Longe were promulgated and enforced, only with more illustration and in more detail), acknowledged himself convinced and prepared to surrender the position he had previously taken up. "Is there such a thing," he writes (*Dissertations and Discussions*, vol. iv. p. 44), "as a wages fund in the sense here implied? Exists there any fixed amount which, and neither more nor less than which, is destined to be expended in wages? Of course there is an impassable limit to the amount which can be so expended; it cannot exceed the aggregate means of the employing classes. It cannot even come up to those means; for the employers have also to maintain themselves and their families. But short of this limit it is not, in any sense of the word, a fixed amount."

The conflict was, however, by no means brought to an end by Mill's surrender. The cudgels were taken up in behalf of the wages fund by Professor CAIRNES in his work *Some leading Principles of Political Economy*. He in pt. ii. c. i. attempts to reply to the arguments of Longe and Thornton, maintaining against the former the possibility of a general or average rate of wages determined by the relation of population to capital, and against the latter the real existence of a natural wages fund destined to be expended on labour, though he concedes the essential point which Mill's theory seems to imply, that this fund can ever have the character of being of a determinate or fixed amount. These reasonings of Cairnes were adopted and reinforced by Fawcett in the later editions of his *Manual*, who answers in addition certain objections urged by Professor Sidgwick in his *Principles of Political Economy*, bk. ii. ch. viii.

The controversy entered on a new phase after the publication in 1876 of Professor F. A. Walker's treatise on the *Wages Question*. Professor Walker attacked the theory from a wholly new point of view. He maintains that wages stand in no necessary relation to capital at

all, that it is only for convenience sake that they are advanced out of capital, that their amount is in no sense determined by the proportion of population to capital, "rather that wages are in a philosophic view of the subject paid out of the product of present industry, and hence that production furnishes the true measure of wages" (F. A. Walker, *The Wages Question*, pt. i. chs. viii. and ix.). The same writer, in his *Political Economy*, pt. iv. ch. v. § 326, describes the labourer as the "residual claimant to the product of industry," holding that after the deduction of rent, interest, and profit, the whole remaining body of wealth, daily or annually created, is the property of the labouring class, their wages, or the remuneration of their services. Most modern writers have at least so far adopted these views as to admit the untenableness of the doctrine of a wages fund, and to consider the proportion of population to capital as one at most, though a really important one, among a number of causes by which the average or the actual rate of wages in any country will be determined.

[The following works, including those mentioned in the text, may be consulted. Malthus, *Essay on Population*, bk. iii. ch. v. bk. iv. ch. iii.—Bonar, *Malthus and his Work*.—James Mill, *Elements of Political Economy*, ch. ii. § ii.—J. S. Mill, *Principles of Political Economy*, bk. i. ch. v., bk. ii. ch. xi. xii.—Fawcett, *Manual of Political Economy*, bk. ii. ch. iv.—*Economic Condition of the British Labourer*, ch. iv.—F. D. Longe, *A Refutation of the Wage-Fund Theory of Modern Political Economy as enunciated by Mr. Mill, M.P. and Mr. Fawcett, M.P.*, Longmans, 1866.—W. T. Thornton on *Labour, its wrongful Claims and rightful Dues, its actual Present, and possible Future*, Macmillan, 1870.—J. S. Mill, *Dissertations and Discussions*, vol. iv. article ii. pp. 25, 86 on.—Thornton on *Labour and its Claims*.—J. E. Cairnes, *Some Leading Principles of Political Economy*, pt. ii. ch. i.—F. A. Walker, *The Wages Question*, chs. viii. and ix.—*Political Economy*, pt. iv. ch. v., pt. vi. article v.—Arnold Toynbee, *The Industrial Revolution*, c. xi.—Henry George, *Progress and Poverty*, bk. iii. c. vi.—Professor J. S. Nicholson, *Principles of Political Economy*, bk. ii. ch. v.—H. M. Thompson, *Theory of Wages*, ch. v.—Prof. A. Marshall, *Principles of Economics*, bk. vi. ch. ii. and note.] W. A. SR.

WAGES, NOMINAL AND REAL. In the term *nominal* wages is included the present value of all money wages, regular or occasional, and perquisites and expectations, reckoned over a given period, say one year, in the currency of a given time and place. The ordinary weekly wage, whether time or piece; a fair estimate of special earnings, from overtime or occasional work, as harvesting; the money value of all payments in kind, whether in the shape of actual receipts, or of reduced rent, or of facilities for cheap purchase of goods; a suitable estimate for residence, board, or clothing; and interest on the capital present value of the expectation of deferred pay or pensions—all these must certainly be included, while the expenses of getting to work and the annual cost of necessary implements must be subtracted. It is doubtful whether allowance should be made for lost time, when not seasonal; whether taxes direct or indirect should be subtracted; whether facilities for subsidiary earnings, indoors or out, by any member of the family, ought to be estimated; and whether account should be taken of the average number of years' work out of a lifetime that can be spent at the trade in question, this number varying very much according to the dangers or sanitary conditions of the trade, and determining the number of non-workers that must be supported by each worker (Engel, *Wesen und Preis der Arbeit*, and *Die Selbstkosten der Arbeit*, 1872; Walker, *The Wages Question*, p. 12 *seq.*). Thus by consideration of such circumstances the average *nominal* annual earnings of the English agricultural labourer in 1891 were found to be £39 ("Labour Commission," *The Agricultural Labourer*, vol. v. pt. i. pp. 57-87). By *real* wages are meant the purchasing power of nominal wages measured by a constant standard. According to Prof. Walker (*loc. cit.*) "*real* wages are the remuneration of the hired labourer as reduced to the necessaries, comforts, or luxuries of life," and differ from nominal by reason of (i) variations in the purchase power of money; (ii) variations in form of payment; (iii) opportunities for extra earnings; (iv) greater or less regularity of employment; (v) longer or shorter duration of the labour power. Of these (ii) is best corrected as described above, while the advantage of including (iii) (iv) or (v) in practical comparisons is doubtful. (For the whole definition compare Marshall, *Principles of Economics*, ed. 1895, pp. 629-635.)

When comparisons are made between the economic conditions of groups of different countries, districts, trades, or periods, it is useless to regard simply the *nominal* wages. This is most evident when a great interval of time is taken; thus a hind's annual (nominal) earnings in the 13th century were valued at 35s. 8d. (Thorold ROGERS, *Six Centuries of Work and Wages*, p. 170); now those of an agricultural labourer may be taken as about £40; and it is difficult to suppose that this ratio, 1 : 22, in any way measures their relative well-being. Hence comparison of nominal wages is, at any rate in extreme cases, futile.

A more recent example may be obtained from the divergence of currency from gold during 1861-78 in the United States. The following figures are compiled from the Senate report on wholesale prices, wages, and transportation, 1893, and the table is in the main the same as that given by Mr. Edward Atkinson in his pamphlet *The Battle of Standards and the Fall of Prices*.

In each case 100 represents the quantity in 1860.

Years	1845	1850	1855	1860	1865	1870	1875	1880	1885	1890
Average wage in currency	86	91	97·5	100	149	167	158	143	156	168
,, ,, gold	86	91	97·5	100	69	137	140	143	156	168
Average price of commodities in currency	103	102	113	100	217	142	128	107	93	92
Value of paper currency in gold	100	100	100	100	46	82	89	100	100	100
Purchasing power of wages	84	89	87	100	69	117	124	137	168	183

This shows that the course of *nominal* wages, measured in currency, is entirely different in the period 1860-80 from that of *real* wages, measured by purchasing power—so different that no change in the method of computation could make them similar. Even when wages are measured in gold, the courses of nominal and real wages possess only a rough similarity. A third example may be found in the earnings of gold-diggers. When gold is plentiful and provisions are scarce, an immense *nominal* wage is necessary for a bare subsistence. It may be noticed in passing that the cycle of commercial inflation and depression affects *nominal* more than *real* wages; for in time of inflation prices rise and wages follow, and in depression prices fall, and wages are, at any rate, hindered from rising if they do not actually fall. Thus wages measured by purchasing power fluctuate less violently than wages measured in currency. We have then to determine the best method of comparing purchasing power at different times or places. For different times the obvious method is to use index-numbers (see INDEX-NUMBERS; TABULAR STANDARD). Those formed on a consumption basis and dealing with retail prices (p. 385, col. 2 b), are theoretically the best, but in practice cannot be accurately evaluated. For approximation index-numbers like Sauerbeck's can be used, but the theoretical objections stated in the article referred to have their greatest weight when dealing with retail purchases by a special class. Numbers representing the ratio of the purchasing powers of money in different places at the same time could be compiled by similar methods, but since we should then be measuring accidental variations due to the peculiarities of a single place, and not a general movement of price due to general changes, we could no longer expect our number to be independent of the errors of weighting. The mere rate of exchange of currency between two countries is of course determined by quite other considerations than that of purchasing power (see EXCHANGE, FOREIGN). For times separated by long intervals writers are generally contented with a rough statement of the following nature:

Purchase value of the Sovereign.

Year.	Flour.	Beef.	Butter.
	lbs.	lbs.	lbs.
1820	113	70	25
1880	173	39	21

Levi, *Wages and Earnings*, 2nd ed. pp. 148, 150.

Number of days' work necessary to purchase 1 qr. of Wheat.

Year	1580	1610	1650
Artisan	12	30	32
Labourer	18	44	44

Thorold Rogers, *op. cit.* p. 427.

(Compare also table on pp. 634-637, Wages and Prices, and see Cunningham, *Growth of English Industry*, vol. ii., app.). If we attempt to combine such statements we are confronted with the difficulty of weighting the numbers representing the different commodities; this is usually done by means of budgets (see WORKMEN'S BUDGETS), the following being the most important methods.

(i) A standard budget, having no close relation to any time or place, is formed (α) of the commodities generally purchased by the working classes, corresponding to a LIVING WAGE (*q.v.*), or (β) of the minimum necessary for subsistence (Atkinson, *Distribution of Products*, p. 158 *seq.*, Carnegie, *Contemporary Review*, 1894). This standard budget is priced for any two places or times. The ratio of the two prices is inversely proportional to the two purchasing powers. The ratio of the *nominal* wages, multiplied by the ratio of the purchasing powers, gives the ratio of the *real* wages.

(ii) A similar method is to make a typical budget for one place or time, and value the budget at the prices of the place or time with which comparison is to be made. Then procedure is as in (i) (Toynbee, *Industrial Revolution*, pp. 139, 140; Leone Levi, *Wages and Earnings*, 2nd ed. p. 34; Purdy, *Stat. Soc. Journal*, 1861, and many others, *v. infra*; Porter, *Progress of the Nation*, 1851, esp. p. 583). The objections to (i) are that the standard both of living and minimum wages varies immensely from country to country (*e.g.* China and U.S.A.), and rapidly even in the same country.

The grave objection to (ii) is that the proportion of income spent on different commodities changes, and depends to a great extent on the cost of those commodities. Thus a comparison between budgets of agricultural labourers in 1800 and 1890 would be most misleading, whichever budget was taken to be priced at the other period.

M. de Foville (*Journal de la société de statistique*,

1888, p. 333) discusses a paper by M. Guyot—*Essai sur l'aisance relative du paysan lorrain*, Nancy, 1889. 'M. Guyot's method at first was to assume that the same proportion of income was always spent on the same commodities, giving impossible figures. M. de Foville applies method (ii) with better results (*v. infra*). The word "aisance" used by Guyot (*loc. cit.*) represents well the quantity we wish to measure. (iii) The best method theoretically for measuring "aisance relative" appears to be as follows: calculate the quantity by method (ii) twice, taking first a budget typical of the earlier, then of the later year, valuing them at the prices of both years and obtaining two ratios. The average (possibly the geometric rather than the arithmetic) of these ratios measures the relative "aisance."

Let $a_1, a_2, \ldots a_n$ units of n commodities be bought at prices $p_1, p_2, \ldots p_n$ at one date, and $b_1, b_2 \ldots b_n$ units at prices $q_1, q_2 \ldots q_n$ at another, where any of the a's or b's may be zero. Then the "aisance relative" by method two is $\frac{\Sigma ap}{\Sigma bq}$ or $\frac{\Sigma bp}{\Sigma aq}$

By the method suggested it is $\frac{1}{2}\left(\frac{\Sigma ap}{\Sigma aq}+\frac{\Sigma bp}{\Sigma bq}\right)$ or

$$\sqrt{\left(\frac{\Sigma ap}{\Sigma aq}\times\frac{\Sigma bp}{\Sigma bq}\right)}.$$

If $c_1, c_2, \ldots c_n$ are units in standard budget (1), "relative aisance" is $\frac{\Sigma cp}{\Sigma cq}$.

M. Guyot's method was:—if $r_1 I_1$, $r_2 I_2$ are parts of income, I_1, spent on different commodities.

Let $r_1 I_1$ buy α_1 goods in one year, and $r_1 I_2$ (I_2 other income) buy β_1 similar goods in another.

Then $\Sigma\left(\frac{\beta}{\alpha} r\right)$ measures "relative aisance."

[For materials for making comparisons of real wages, or for results of such comparisons, see all books mentioned under WORKMEN'S BUDGETS; —Leroy-Beaulieu, *Répartition des richesses*, ch. xvi.; and *Traité théorique et pratique d'économie politique*, ii. p. 302 *seq.*—Booth, *Life and Labour*, i. 138.—Brassey, *Foreign Work and English Wages*, p. 116.—Giffen, *Journal of Royal Stat. Soc.*, 1888. Higgs, *Journal of Royal Stat. Soc.*, 1893.—Kebbel, *The Agricultural Labourer.*—Rogers, Thorold, *Work and Wages* (*passim*).—Sauerbeck, in *Journal of Royal Stat. Society* (*passim*).—Schoenhof, the *Economy of High Wages*, p. 161 *seq.*—Wright, Carroll D., *Industrial Evolution of the United States*, 1895.—Young, A., *Northern Tour; Enquiry into Progressive Value of Money in England; Travels in France.*—*Reports of American Labour Bureaux.* Comparative (numbers refer to years)—Cal., 1883-84; Ill., 1884; Mass., 1872, '74, 1884-85; Mich., 1893; N. J., 1885; Wisc., 1884. Local—Col., 1887-88; Md., 1884-5, '90-1; Mass., 1879, '82; Mich., 1886; N. J., 1882, 1886; Ohio, 1887; Pa., 1879-80; Wisc., 1883. See also Ill., 1879-80; Me. 1889; Minn., 1889-90; Ohio, 1879-80, '85, '86; R. I., 1887-88, and Index published by Washington Central Bureau in 1893.—*Foreign Office Misc. Series*, 1892, No. 258.] A. L. B.

WAGES, PURCHASING POWER OF. In comparing records of wages paid in various occupations in the past, especially in the distant past, all sense of the proportion between the degree of well-being procured by the wages of labour at different epochs is lost, if the variations in the prices of the commodities entering into the labourer's daily consumption are not brought into the comparison. But the modes of expenditure of wages change considerably from period to period, and are by no means similar for the majority of individuals in any given class of labourers at any one time. The variations in the general purchasing power of money cannot be appropriately applied to determine the variations in the purchasing power of money wages whose varying amounts are known. Satisfactory records of prices are, from the nature of the case, records of wholesale prices, while the labourer's expenditure is a retail expenditure. Only in so far as we can assume that the variations of wholesale and of retail prices are the same in direction and similar in amount, can we regard with satisfaction any judgment on the course of the purchasing power of wages based on comparisons of wholesale prices. We cannot, therefore, pretend to any precision in the measurement of changes in the purchasing power of wages. Retail prices vary in very arbitrary fashion, and no two families will purchase the same commodities even if their incomes be the same. Even taken in large groups, no great degree of regularity in the apportionment of expenditure under different heads manifests itself in WORKMEN'S BUDGETS (*q.v.*). Recognising that it is better to know part of the facts, than to ignore them entirely on the ground that a degree of knowledge which is satisfactory is not to be attained, estimates have been framed to indicate the changes in real wages which are bound up in recorded changes of nominal wages. So long as we recognise the limits of the applicability of the conclusions, it will be a gain to have partial knowledge; were we to ignore the fact that the limits exist and are rather narrow, such partial knowledge would perhaps be worse than ignorance. In the articles PRICES, HISTORY OF, and WAGES AND PRICES OF COMMODITIES, a certain amount of material is presented which permits the variations of prices of leading commodities to be compared with those of wages. So far as England is concerned, we proceed to make some more detailed comparisons. The investigations of Thorold ROGERS supply us with the most abundant material, and the modes of comparison adopted by Rogers may be abbreviated for the purpose of summary view of the results. The amount of food necessary for the support of a family of four persons for a year is, in some of Rogers' comparisons, given at 3 quarters of wheat, 3 quarters of malt, and 2 of oatmeal (cp. *Six Centuries of Work and Wages*, ch. xiv.), while in others a provision of 4 quarters of wheat, 2 quarters of malt, and 800 lbs. of

meat (*cp. History of Agriculture and Prices*, vol. i. ch. xxix.) is considered suitable for purposes of estimating the relation of wages to necessaries of life. Referring to these as "grain diet" and "meat diet" respectively, we obtain the following comparative table :—

	1261-1350	1351-1400	1401-1540	1541-1582	1583-1642	1643-1702
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Cost of grain diet . .	43 10	47 0	58 6	135 6	285 8	360 0
Cost of meat diet . .	48 0	53 6	65 5	166 9	327 7	409 8
Yearly wages of carpenter	73 5	108 8	138 1	235 0	292 9	480 9
Yearly wages of labourer	61 8	91 1	94 0	176 3	227 2	300 7
Number of weeks' labour yearly needed to procure grain diet by						
(*a*) Carpenter . .	28	20	18	27	46	34
(*b*) Labourer . . .	33	24	27	42	59	55
Number of weeks' labour yearly needed to procure meat diet by						
(*a*) Carpenter . .	31	23	22	33	53	40
(*b*) Labourer . . .	37	28	33	51	68	64

Note.—In calculating the cost of malt, the prices for the first quality have been taken. Rogers takes second quality, but his tables do not give continuous records for second quality from which to form the above averages. For meat, in the first three periods the cost is based on Rogers' estimates, the prices being quoted for whole animals. In the last three periods the price per 14 lbs. is taken as basis. As in the article on PRICES, HISTORY OF, the wages for a labourer before 1400 are those of a thatcher, which are somewhat higher than those of common agricultural labour, the wages of which are quoted after 1400. Hence the relative change in the labourer's position is not truly shown, the actual position being less favourable in the first two periods than is here represented. Fractions of pence and fractions of weeks have been ignored in the table. The yearly wages have been calculated at the rate of 47 weeks in the year at the daily or weekly rates given in the article PRICES, HISTORY OF.

The fact is clear that at some periods the amount available for clothing, etc., and other purposes was adequate, while at others the provision was necessarily more stinted than that which has formed the basis of these calculations. To carry on the comparison, we may take advantage of the results stated by Rogers so far as concerns the relative position in the time of Arthur YOUNG and at various periods during preceding centuries. Compared with the fourth of the above periods for example, the case is stated (Rogers, *History of Agriculture and Prices*, vol. iv. p. 758) thus: the necessaries of life had become three to four times as dear, while the wages of labour were not much more than double. The purchasing power of wages had therefore decreased from 33 to 50 per cent. The course of the relation of wages to prices during the 18th century is shown in the table quoted from Arthur Young in the article to which reference has already been made several times (see PRICES, HISTORY OF). It there appears that agricultural wages during the 18th century did not advance as rapidly as prices. Comparing the first two-thirds of the 18th century with the first decade of the 19th, wages were doubled in the interval, while prices were increased to two and a half times their old level or more. The purchasing power of wages, therefore, fell about 20 per cent, and the fall took place in the period 1767-89, but little further loss of wages relative to prices coming later according to Young's records. The first half of the 18th century was a time when the purchasing power of wages rose to a higher level than that of the preceding century. By the beginning of the 19th century, the movement had been so unfavourable to the labourer that his command over commodities was probably not greater than in the worst period (1583-1642) of those shown in the preceding table. It may be added that the necessaries of life in the matter of clothing and shelter were much dearer, and needed certainly as large a share of the wages to be devoted to them as in the 16th or 17th centuries, probably more. The table in WAGES AND PRICES OF COMMODITIES shows the amounts of wages and the cost of a working man's board at short intervals from 1720 till recent times, and affords more than as much information on the relation of wages to the cost of living for these later times as the tables of this article afford for earlier times.

Mr. Bowley, in a paper read before the Royal Statistical Society in 1895, adopted an ingenious method of making comparisons of wage-levels at different periods. Comparing these with the movements of prices shown by Mr. Sauerbeck's Index Number, Mr. Bowley points out the resultant changes in average real wages, that is, in the purchasing power of average wages, in the following scheme :—

Date.	Real Average Wages.	Date.	Real Average Wages.
1860	100	1877 | 1880	139
1866	110	1883	157
1870	116	1886	180
1874	134	1871	192

Reasons for not relying implicitly on the indications of INDEX NUMBERS as to the average movements of the prices of the articles entering into the workman's expenditure, have been given above. These and other facts already alluded to, such as changes in the nature of working-class expenditure which must derange any comparisons with past centuries which pretend to precision, deter us from placing here a table showing, for the whole period covered, by a single series of numbers, the movements

of real wages. The facts adduced will, however, show the leading upward and downward movements of real wages, and no real loss is caused by their presentation in such a form as not to permit of a ready comparison of the position to-day with that at any given epoch of the past. Such comparison cannot be precise, cannot be made without taking into account many circumstances of the life of the people not mentioned here, and to offer an appearance of precision would be delusive (see WAGES, NOMINAL AND REAL; WORKMEN'S BUDGETS; and the works referred to in the bibliographies attached to those articles). A. W. F.

WAGES, STANDARD RATE OF. See STANDARD RATE OF WAGES.

WAGES STATISTICS. From figures collected and tested by the labour department of the board of trade, it appears that the normal rates of wages, plus the estimated value of allowances, such as free homes, etc., paid to the workers in thirty-eight selected occupations during 1886, were 24s. 7d. per week, or £64 per annum, for men; 12s. 8d. per week or £32:10s. per annum, for women; 9s. 2d. per week, or £23:8s. per annum, in the case of lads and boys; and 7s. per week, or £18:4s. per annum in the case of girls. Of the men employed in these occupations, 0·2 per cent were receiving less than 10s. per week; 2·5 per cent, from 10s. to 15s.; 20·9 per cent, from 15s. to 20s.; 35·4 per cent, from 20s. to 25s.; 23·6 per cent, from 25s. to 30s.; 11·2 per cent, from 30s. to 35s.; 4·4 per cent, from 35s. to 40s.; and 1·8 per cent, above 40s. That is to say, nearly 60 per cent were receiving from 20s. to 30s. per week, or about the average rate; and of the remainder, about 25 per cent were receiving less than 20s.; and 17 per cent, more than 30s. If to these thirty-eight occupations there be added the other important industries, as railways, building trades, etc., which it was not found possible to treat in the same way, the average annual earnings of adult males may, according to Sir R. Giffen, be approximately estimated at a little over £60; of women at £40; of lads and boys at £23:8s.; and of girls at £23. According to the census returns for 1881, the total adult male working population, excluding the residuum, chiefly to be found in the large towns, of persons whose employment is permanently irregular, was, in round numbers, 7,330,000; of adult female workers there were 2,900,000; of lads and boys, 1,700,000; and of girls, 1,260,000; making a total working population of 13,190,000. The aggregate earnings of the men may, therefore, be placed at £440,000,000; of the women, at £118,000,000; of the lads and boys, at £46,000,000; and of the girls, at £29,000,000; making a total annual income for the manual labourers of £633,000,000.

[See Minutes of Evidence taken before the Royal Commission on Labour, sitting as a whole, questions 6873-7165, and 8086-8381, Parl. Papers, c. 7063-i. of 1893, and Appendix to ditto, No. 124, Parl. Papers, c. 7063-iiia of 1894]. T. G. S.

WAGES, STATISTICS OF (IN THE UNITED STATES OF AMERICA). The statistics of wages for the United States labour under peculiar difficulties. Any historical account of wages encounters the enormous change that has come over a country developing from an agricultural colony into a great industrial state. The United States has participated with Europe in the development from hand-labour to the factory system, only the change has been in some respects even more abrupt, radical, and complete. Comparison of wages for successive periods is, therefore, difficult, because occupations have changed often in name and almost always in character. Such comparisons must be limited to a few common occupations. They cannot be carried very far back because of the lack of data, and because in early agricultural communities employments are scarcely differentiated. Particularly in the United States is this true, where originally every man owned his farm, and agricultural day labourers as a class were unknown. A second difficulty is that even at the present day there are very striking differences between different sections of the country, so that any statistics of wages applicable to the whole country is almost, if not altogether impracticable. The eastern states are industrial, with large cities and factory towns, and the population has many of the characteristics of the English factory and mining districts. Owing to immigration, there are, however, many contrasting bodies of working men, from the highly skilled American artisan down to the French Canadian factory hand, the Italian day labourer and the Russian-Hebrew sweated tailor and garment-maker. In the north-central states of the Mississippi valley we have a community still largely agricultural, with farmers owning the land—peasant proprietors on a large scale. In the extreme west we have some of the characteristics of newly-settled countries, *i.e.* scarcity of certain kinds of labour and a high range of wages. Finally, in the south we have the great mass of negroes, formerly slaves, unskilled, ignorant, and representing labour of a low degree of efficiency. An average wage even in the same employment for all these different sections is an impossibility. At least it means nothing. For historical and comparative purposes it is necessary to confine ourselves to one section.

Systematic attempts to collect wage statistics are of very recent date in the United States, in fact scarcely twenty years old, and are confined for the most part to the eastern states.

History of Wages.—There are scarcely any records of wages in the 18th century. The Massachusetts bureau of labour statistics has

gathered up what there are from old pay-rolls, private account books, and other documents, and presented the results in the following table (*Report*, 1885, p. 454):—

2. *Wages (Day). By Periods of Years (Massachusetts) 1800 to 1888.*

	Period ending with								
	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1880.	1888.
	$	$	$	$	$	$	$	$	$
Agricultural labourers	0·478	0·779	0·782	0·803	0·875	0·95	1·01	1·31	1·37
Blacksmiths	..	..	·842	1·12	1·40	1·47	1·69	2·28	1·92
Bookbinders	..	..	..	..	·917	1·46	1·38	1·91	1·49
Butchers	..	·50	·75	·917	..	..	..	2·03	1·36
Carpenters	·736	1·09	1·13	1·07	1·40	1·37	2·03	2·42	2·41
Carriage makers	..	..	..	..	1·34	1·59	1·85	2·40	2·27
Clock makers	..	..	1·18	1·29	1·29	1·29	1·96	2·30	..
Clothing makers	..	..	1·00	1·27	·896	1·38	1·48	1·93	1·99
Cotton mill operatives	..	..	..	·439	·897	·92	1·03	1·40	1·27
Glass makers	..	..	..	1·13	1·62	2·44	2·96	1·79	2·01
Gold and silver workers	..	..	..	..	·974	1·28	1·69	1·53	3·21
Harness makers	..	..	·88	1·13	1·25	1·46	1·65	..	..
Labourers	·623	·817	·91	·796	·872	·852	·975	1·48	1·31
Machinists	..	..	..	..	1·35	1·62	2·15	2·49	2·25
Masons	..	1·41	1·52	1·22	1·37	1·33	1·53	2·79	2·14
Metal workers	..	..	1·05	1·23	1·54	1·42	1·35	2·16	2·00
Millwrights	1·09	..	1·13	1·21	1·39	1·39	1·66	2·65	2·54
Nail makers	..	..	1·00	1·39	·86	1·50	..	..	1·34
Painters	..	1·15	1·34	1·25	1·32	1·47	1·85	2·32	1·97
Paper mill operatives	..	..	1·09	·666	·749	·842	1·17	1·71	1·71
Printers	..	..	1·13	1·25	1·38	1·17	1·75	2·18	2·14
Ship and boat-builders	..	..	1·25	1·40	1·33	1·35	3·65	2·49	3·25
Shoemakers	·733	..	..	1·06	·873	1·12	1·70	1·76	1·87
Stone quarrymen and cutters	..	..	..	..	1·29	1·45	1·40	2·33	2·01
Tanners and curriers	..	..	1·00	1·13	1·46	1·13	1·67	2·09	1·86
Wooden goods makers	..	·66	1·26	1·25	1·36	1·11	1·72	2·01	2·28
Woollen mill operatives	..	..	..	1·12	·995	·865	·873	1·31	1·24

1. *Period 1760 to 1790.*

	Period ending with			
	1760.	1770.	1780.	1790.
	$	$	$	$
Agricultural labourers	0·311	0·330	0·315	0·396
Blacksmiths	..	..	..	·694
Butchers	..	..	·333	..
Carpenters	..	..	·522	·539
Labourers	·29	·325	·376	·428
Masons	..	..	·666	1·00
Nail-makers	..	..	..	·481
Ship and boat-builders	..	..	..	·889

The second great investigation of wages was that conducted by the department of labour at Washington, for the senate committee on wholesale prices, wages, and transportation (Aldrich Committee), and published in 1891. There are in this Report 61 series of wage returns which begin as early as 1840, and as many as 543 distinct series which cover the period from 1860 to 1891. The returns are actual wages, from manufacturers' pay-rolls, and quotations are given for January and July of each year.

Index Wages.—The chief object of the Aldrich Report was to determine whether wages had increased or decreased during the last fifty years. For this purpose the familiar method of the index number was used, the year 1860 being taken as the base, 100, and two methods being used, one a simple average, and the other a weighted average according to the relative number of persons engaged in each occupation. The result on a gold basis is shown by the following table, *Rept.*, pt. i. p. 14:—

Relative Wages by Years 1840-1891

Year.	Simple Average.	Average According to Importance.	Year.	Simple Average.	Average According to Importance.
1840	87·7	82·5	*1866*	108·8	111·1
1841	88·0	79·9	*1867*	117·1	121·8
1842	87·1	84·1	*1868*	114·9	119·1
1843	86·6	83·0	*1869*	119·5	123·5
1844	86·5	83·2	*1870*	133·7	136·9
1845	86·8	85·7	*1871*	147·8	150·3
1846	89·3	89·1	*1872*	152·2	153·2
1847	90·3	91·3	*1873*	148·3	147·4
1848	91·4	91·6	*1874*	145·0	145·9
1849	92·5	90·5	*1875*	140·8	140·4
1850	92·7	90·9	*1876*	135·2	134·2
1851	90·4	91·1	*1877*	136·4	135·4
1852	90·8	91·8	*1878*	140·5	139·0
1853	91·8	93·2	*1879*	139·9	139·4
1854	95·8	95·8	*1880*	141·5	143·0
1855	98·0	97·5	*1881*	146·5	150·7
1856	99·2	98·0	*1882*	149·9	152·9
1857	99·9	99·2	*1883*	152·7	159·2
1858	98·5	97·9	*1884*	152·7	155·1
1859	99·1	99·7	*1885*	150·7	155·9
1860	100·0	100·0	*1886*	150·9	155·8
1861	100·8	100·7	*1887*	153·7	156·6
1862	100·4	101·2	*1888*	155·4	157·9
1863	76·2	81·9	*1889*	156·7	162·9
1864	80·8	86·2	*1890*	158·9	168·2
1865	66·2	68·7	*1891*	160·7	168·6

From a consideration of this table, it becomes evident that there was a gradual advance in wages from 1840 to 1860; since that date the advance

has been less regular, but more rapid. The depressing effect of the premium on gold is seen during the years 1863-66. Comparison with a table of prices would show that the purchasing power of wages has increased to an even greater extent than money wages.

The increase in wages has not been the same in all industries. This is shown by the preceding table, which gives the increase from 1860 to 1891 by industries. The number of quotations is also given, so that it is possible to judge of the basis upon which the index number rests. Each quotation represents a series of wages, *Rept.*, pt. i. p. 12.

Relative Wages in 1891, compared with 1860 by Industries.

Industry.	Number of Quotations.	Relative Wages.
Agricultural implements	5	137·9
Ale, beer, and porter	5	224·7
Books and newspapers	21	148·6
Building trades	39	172·5
Carriages and waggons	4	202·4
City public works	23	164·6
Cotton goods	131	165·1
Dry goods (stores)	3	183·6
Ginghams	30	152·7
Groceries (stores)	2	194·7
Illuminating gas	22	167·7
Leather	16	137·6
Lumber	5	177·9
Metals and metallic goods	130	148·6
Paper	7	182·3
Railroads	11	146·4
Sidewalks	4	187·5
Spice	5	164·2
Stone	19	165·2
White lead	3	140·6
Woollen goods	58	167·8
Total	643	160·7

Comparative Wages.—An attempt is sometimes made to compare wages in the United States with wages in Europe. Wages are undoubtedly higher in the United States, but how much higher it is impossible to say, because of the differences in occupations and in the purchasing power of money. The most elaborate comparison of this sort was made by the Massachusetts bureau of labour statistics in 1884. The average weekly wages in twenty-four industries were as follows :—

	Massachusetts.	Great Britain.
	$	$
Men	11·85	8·26
Women	6·09	3·37
Young persons	5·10	2·40
Children	3·81	·79
All employés	10·31	5·86

The Massachusetts Report for 1895 gives actual wages in the United States and in foreign countries, but no attempt has been made to average them for purpose of comparison.

Average and Classified Wages.—Average wages are, as a rule, very unsatisfactory. There are so many differences in skill, age, sex, hand or machine labour, that an average may be mathematically correct and yet give a false impression. So, too, the inclusion of the high wages of a foreman or superintendent would raise the whole average above what the ordinary workman gets. It has been proposed, therefore, to classify wages rather than to average them, *i.e.* to give the number of men receiving between $5·00 and $6·00 per week, between $6·00 and $7·00, and so on. We are thus able to judge somewhat of the real income of the greater number of wage earners, which is the important question in wage statistics.

The eleventh census has proceeded upon this plan, and some of the results are published in the volume on manufacturing industries. For the sake of illustrating the method as well as giving wages for two important industries, the following table is given showing the number of males above sixteen years of age in the iron and steel manufacture, and in the cotton manufacture, at different rates of wages.

The advantage of such a table is that it shows the economic position of the great mass of working men in any industry. In the two industries contrasted here, it will be seen at a glance that the men in the iron and steel industry are paid much higher wages than the men in the cotton manufacture. More than one-half (57·7 per cent) of the men in the cotton industry receive less than $8·00 per week, while only 21 per cent of the men in the iron and steel industry receive less than $8·00 per week. For the question of income, such a classified wage is more interesting than an average wage.[1]

Weekly rates of Wages.	Iron and Steel Manufacture.	Cotton Manufacture.	Percentages. Iron and Steel.	Percentages. Cotton.
			%	%
Under $5	1,643	15,164	0·97	17·14
$5 and over, but under $6	3,424	9,924	2·02	11·22
$6 " " $7	10,198	15,491	6·03	17·51
$7 " " $8	20,265	10,485	12·00	11·85
$8 " " $9	25,041	9,120	14·82	10·30
$9 " " $10	23,727	8,712	14·04	9·84
$10 " " $12	24,516	8,409	14·51	9·50
$12 " " $15	24,458	5,427	14·47	6·13
$15 " " $20	17,974	3,027	10·63	3·42
$20 " " $25	10,502	1,291	6·21	1·46
$25 "	7,195	1,417	4·25	1·60
Total	168,943	88,467	100·00	100·00

For complete wage statistics it would be necessary to add some facts in regard to the cost of living and the question of employment and unemployment. These things vary, however, so

[1] There is one slight discrepancy in this comparison, viz. officers and foremen are included in the cotton industry but not in the iron and steel.

much from time to time, and in different industries, that it is impossible to enter into the subject here. Some references will be found in the bibliography.

Critical Bibliography. — The chief sources of information for wage statistics in the United States are the reports of the bureaus of labour statistics of the several states, the investigations of the department of labour at Washington, and the tenth and eleventh censuses of the United States.

Of the state labour bureaus, by far the most important is that of Massachusetts. The report for 1874 gave "Comparative Rates of Wages and Hours of Labour in Massachusetts and Foreign Countries"; also "Prices of Provisions, etc. in Massachusetts and Europe." The report for 1876 contained 71,339 wage returns. The report for 1879 contained a comparison of "Wages and Prices, 1860, 1872, and 1878." The result of this investigation showed an increase in 1878 as compared with 1860 of 24·4 per cent in wages, and 14·50 per cent in cost of living. The report for 1882 was entitled "Wages, Prices, and Profits." The report for 1883 gave statistics of wages of 207,793 employés. The report for 1884 was a very extensive investigation, comparing wages in Massachusetts and Great Britain for several years, ranging from 1860 to 1883; this report is the best piece of work of this sort ever accomplished in America. The chief results are shown in the table above. The report for 1885 contained a condensation of the report for 1884, and in addition an "Historical Review of Wages and Prices, 1752-1860." It is from this report that the first table above is taken. The report for 1889 was devoted to "Classified Weekly Wages"; it contained classified wages for 248,200 employés. Finally, the report for 1895 commences the publication of 489,600 wage returns, gathered from all sources, and 166,400 price quotations. It will be several years before all of these returns are published; they are arranged by occupations, and wages are divided into five classes: high, medium high, medium, medium low, and low. The utility of this enormous undertaking may be doubted. Other state bureaus have collected statistics of wages, notably New Jersey in 1884, and Michigan in 1885, but none of them is comparable with the Massachusetts report of 1884.

The department of labour at Washington published extensive figures of actual wages in its sixth and seventh annual reports entitled "Cost of Production in Iron, Steel, Coal, Textiles, and Glass Industries"; it also investigated the cost of living of families in these industries, and compared cost of living with income (see WORKMEN'S BUDGETS). The department of labour also collected the figures of wages for the Aldrich report mentioned in the text.

The tenth census of the United States published various returns of statistics of wages. Those of manufactures are contained in vol. ii.; they are of little value, because the average wage is calculated by dividing the total amount paid in wages in an industry by the total number of employés; such an average confuses the wages of men, women, and children, of skilled and unskilled workmen, and differences due to locality, so that the average represents nothing at all. Volume xx. of the tenth census is devoted entirely to the statistics of wages. No effort was made to classify this enormous collection of figures, so that it has remained practically useless.

The eleventh census of the United States collected statistics of wages in manufacturing industries, classified as described in the text, and published chiefly in the three volumes on manufacturing industries. In these returns a distinction is drawn between males, females, and children, between piece workers and time workers, and between officers, firm members, and clerks, as contrasted with operatives, skilled and unskilled. A summary of average annual earnings per employé in different industries and in different states will be found in Part I., and detailed wage statistics for textile industries, chemicals, glass, coke, petroleum, glue, iron and steel manufactures, locomotives, clay products, shipbuilding, forest industries, etc. in Part III. In all these industries wages are classified as illustrated in the text. The volume on transportation business also contains statistics of wages, but in a crude form. The report on mineral industries contains statistics of wages of miners, classified as foremen and overseers, miners, labourers, and boys under sixteen years, giving also the average number of days' work.

[For criticism of American wage statistics see "American Labour Statistics," in *Political Science Quarterly*, March 1886, and "Wage Statistics and the next Census of the United States," in the *Quarterly Journal of Economics*, July 1888. For criticisms of the Aldrich report see Bowley, "Wages in the United States and in Great Britain," 1860-1891, *The Economic Journal*, vol. v. (1895) p. 369]. R. M.-S.

WAGES OF WOMEN. The most striking fact about the wages of women is, as Mill said, that they are generally lower, and very much lower, than those of men. Roughly speaking they are about half. This has been usually accounted for by the inferiority of women as workers. But the explanation seems to weigh the labour of the two sexes in very unequal balances. It would certainly be hard to prove that two woman weavers, minding three or four looms for 10s. a week, are "worth" only one able-bodied navvy earning 20s. A better explanation is that women generally occupy non-competing groups relative to men; the fact being that, when women enter a trade, they generally monopolise it before long. In this case the natural and sex disabilities which prevent them combining tend to bring down the wage—however high it was when the men occupied the industry—to a level at or even below subsistence. Where women combine in the same trade union with men, as, for instance, in the Lancashire weaving, their wages keep up to the men's rates. The specific difficulty of the problem is that, while women must share

with men in the one portion of the national dividend that falls to labour as against the other factors, the great majority of them, either as living with parents or as married, are not independent units. The woman's wage is part of a "family wage." That is to say, while the demand for and the supply of "labour" regulates the wages of labour, these wages are divided among the sexes according to other than purely economic considerations.

[*Econ. Jour.* vol. i. p. 635 (S. Webb), vol. ii. p. 173 (Mrs. Fawcett).—*Studies in Econ.* (Smart), p. 105; FEMALES AND CHILDREN, EARNINGS OF.]

W. S.

WAIF. The earliest mention of this word is probably contained in a charter (*Ch. Roll, No. 42*) of 1247, by which Hen. III. granted to the hospital of Ospringe that animals called "Weyf," found in the fee of the hospital, should belong to its brethren, unless any one should sue for them who would and could prove that they were his, and unless they should be demanded and sued for within a certain term, according to the custom of the country. Subsequently the term "Estray" was used to designate such animals, and waif came to be used in a different sense; for Sir Ed. Coke states that "waif is where the felon in pursuit waives the goods, or when the felon, for fear of being apprehended, thinking that pursuit was made, having them with him in his possession, flies and waives the goods." If seized on behalf of the king they were forfeited to him unless the owner had made "fresh suit" to recover them. In the 13th century this meant that the owner had forthwith to raise the hue and cry to the four nearest townships; and after announcing his loss to the bailiffs and coroners, to appeal the thief at the next county court, and so on from court to court until attainted. Later, however, this law was considerably modified.

[Coke, *Reports*, ed. 1826. London, 8vo, part v. p. 221.]

G. L. T.

WAINAGE. See AMERCEMENTS; WAYNAGE.

WAKEFIELD, DANIEL (1776-1846), chancery barrister, and, after 1835, Q.C.:

Wrote *An Essay upon Political Œconomy, being an inquiry into the truth of the two positions of the French Œconomists that labour employed in manufactures is unproductive, and that all taxes ultimately fall upon or settle in the surplus produce of land*, 1st ed. 1799; 2nd, 1804, was a follower of Sir J. STEUART: but his comparison of rent and interest as "the surplus values" of land and capital § 20, his distinctions of positive and relative cost and use value § 39, of "physical" or necessary and "surplus" or monopoly wages § 49—are clear and correct. In § 43 n. he shows himself a protectionist. In *An Investigation of Mr. Morgan's Comparative View of the Public Finances*, 1801, he praises Dr. PRICE, his SINKING FUND, and W. PITT.

He also wrote *A letter to Thomas Paine in reply to his Decline and Fall of the English System of Finance*, 1796?—*Observations on the Credit and Finances of Great Britain*, 1797; also *Facts of Importance relative to the Present State of Great Britain.*

[W. Roscher, *Principles of Pol. Econ.*, transl. Lalor, vol. i. pp. 177, 268.]

J. D. R.

WAKEFIELD, EDWARD (1774-1854), elder brother of Daniel and father of E. G. WAKEFIELD:

Wrote one book only, *An Account of Ireland Statistical and Political*, 1812, pp. 1600, 4to. He was examined as an expert Essex farmer and general landjobber and valuer by a "committee on the distillation of sugar and molasses," *Reports from Committees of the House*, 1808, iv. 109, and by a "committee on agricultural depression," *ib.*, 1821, ix. 206, and as an expert on Irish money by a "select committee on the high price of gold bullion," *ib.* 1810, iii. 133. His book was written at the instance of J. L. FOSTER, chairman of "the committee for enquiry into the state of Ireland as to its circulating paper, etc. and coin," 1804; and the Irish secretary, W. W. Pole, supplied him with statistics. In addition to these qualifications for his task, he had spent two years on tour in Ireland, travelling like so many of his contemporaries in politics, and weaving his journals into what the 17th century called "political anatomy," the 18th statistics, and the 19th "public economy." His economic bias classes him with such Irish political tourists as T. Campbell (1777) and A. YOUNG (1780), rather than with Bush (1764), Derrick (1767), Twiss (1776), and Luckombe (1780); and like Young he aims at completeness. But there the resemblance to Young, his great exemplar, ceases. No writer has a more personal note, or is more quotable, than Young. Most of the quotable sayings in Wakefield's book are themselves quotations—*e.g.* Vasco's "a large population, if proportionate to the wealth of a country, is advantageous, otherwise it is harmful" 1788 (also quoted by A. Young, *Travels in France*, ed. 1794, vol. i. p. 485), an anonymous writer's "a poorhouse was the cradle of the cotton trade of Ireland," A. Young's "the penal laws are not against the Catholic religion but against the industry and property of whoever professes that religion,"—cp. Campbell, *Philos. Survey*, p. 251. His advocacy of large farms is a reminiscence of A. Young; his views on Irish money (see IRISH CURRENCY), which he wishes to assimilate to English money, are based on SIMON'S work; his discussion of various estimates of the Irish population only confirms NEWENHAM, and his unionism is the unionism of PETTY, CHILD, Molyneux, Maxwell, DOBBS, Madden, DECKER, TUCKER, POSTLETHWAYT, FRANKLIN, BREWSTER, YOUNG, and A. SMITH. True, he has read the latest and best books, including those of MALTHUS, whose postulates appeared to him, as they did to Hallam and Hazlitt, as true "as that the earth turns round on its own axis," ii. 723, and Lecky has rescued at least one bright specimen of original observation, *Hist. of Ireland*, i. 286. His bookishness, while it makes him dull when compared with A. Young, makes him interesting when compared with the authors of the *Statistical Surveys of Irish Counties* which the

Dublin society initiated in 1801, partly at the instance of S. CRUMPE, *Essay*, 1793, p. 157, partly in imitation of the SINCLAIR Reports for Great Britain, 1793 *et seq.* Wakefield's culture and access to statistical information and to Sir J. Banks's famous library are the chief reasons why his work is valuable to economic historians of Ireland.

[*Biogr. Dict. of Living Authors*, 1816, p. 366. —M'Culloch, *Liter. of Pol. Econ.*, p. 218, and A. Young, *Autobiography*, p. 75, praised the book.—Graham Wallas, *Life of F. Place* (1898), ch. iv., describes his work as an educationalist and reformer. Comp. R. Garnett, *Life of E. G. Wakefield* (1898).] J. D. R.

WAKEFIELD, EDWARD GIBBON (1795-1862), coloniser, the son of Edward WAKEFIELD, was educated as a land-surveyor. In 1826 he was concerned in an extraordinary case of abduction, for which he was tried and sentenced to three years' imprisonment. During this term he studied with effect the English penal system, and on his release in 1831 he proceeded to Australia, to study the convict system in the colonies. This led him to the study of the improvident system, up to that time in vogue, of parting with the crown lands in these colonies, and of the question of the proper means of proportioning the number of settlers to the areas taken up. The result of this study was his formulation of the principle on which he afterwards always insisted, viz. that the unoccupied lands of a new colony should not be granted promiscuously, but portioned out and sold on a regular system at an adequate price, and that the proceeds of such sales should be made a fund for assisting further immigration to the colony. The chief difficulty incident to this system was that of fixing the "sufficient" price in each case (see *Parl. Paper*, H. of C., 512, 1836, pp. 66 *et seq.*; *View of Art of Colonisation*, pp. 331 *et seq.*; Mill's *Principles*, v. xi. § 14).

In 1833 Wakefield published his *England and America*, and immediately attracted the notice of the political chiefs in England.

In 1835 Henry George Ward obtained a committee of the House of Commons, "to inquire into the disposal of colonial lands." He obtained Wakefield's assistance as secretary, and the result of the evidence taken was the initiation of the company for the colonisation of South Australia of which Col. TORRENS (*q.v.*) was a leading spirit. Wakefield then addressed himself to arouse the public mind and obtain a parliamentary inquiry into the system of convict transportation, which thus received its death-blow. In 1837 Wakefield became a director of the New Zealand Association, intended for colonising New Zealand. But before he could take up any active work in that direction he went out to Canada as Lord Durham's private secretary in 1838 and remained there till 1845. His health soon afterwards broke down; he went first to the south of France, then to New Zealand, where he died.

Wakefield will always be best known by his system of colonisation above described. He was content to work through others rather than embody his views in any great work. The few writings he left behind served the requirements of the moment, and are obsolete for practical purposes, though Mill quotes him with approval (*Principles*, bk. iv. ch. iv. § 2). The chief of them are *Plan of a Company to be established* for the purpose of founding a colony in South Australia, 1831.—*A Commentary on Adam Smith's Wealth of Nations* (London, 1835).—*A View of the Art of Colonisation in letters between a Statesman and a Colonist* (London, 1849).

[*Gent. Mag.*, 1862, pt. ii. p. 498.—*Brit. Mus. Catalogue*, Mill, *l.c.*, art. HILL BURTON.] C. A. H.

WALES, WILLIAM (d. 1798). Captain Cook's travelling astronomer 1772-79—Master of the Royal Mathematical School at Christ's Hospital 1780-98, and F.R.S. 1777-98:

Made but one incursion into political arithmetic in his *Inquiry into the present State of Population in England and Wales*, 1781. DR. PRICE'S calculations that England was dwindling were based on the HEARTH TAX returns of 1690 and window tax returns (see TAXATION) of 1759 and 1777. A. YOUNG, *Pol. Ar.*, 1774, pp. 84, 88, 322; and Eden, *Letters to Lord Carlisle*, 1780, App. 6, pointed out that in the former "houses" meant "families" (Dr. Price's was also DAVENANT'S and MALTHUS'S mistake), *Essay*, ed. Bettany, p. 232, and in the latter untaxed cottages were filled in by guess-work. WALES and then HOWLETT repeated these criticisms, not always so well—compare *Inquiry*, p. 13, and *Pol. Ar.*, p. 327 n.; and added estimates of their own which relied too much on Yorkshire statistics in which Dr. Price admitted an increase—Anon., *Uncertainty of the present population of the Kingdom* 1781; Dr. Price, *Observations on Reversionary Payments*, 4th ed. 1783, ii. 275 *et seq.* Dr. Price ignored A. YOUNG, traversed EDEN and HOWLETT, but adopted some of Wales's figures—*ib.* i. 245, 251, 260, etc. Price, Wales, and Howlett assumed that numbers meant strength, and Wales followed Sir W. TEMPLE, SHORT, Sir M. DECKER, and J. MASSIE in suggesting the adjustment of taxation, etc., so as to promote marriage.

[*Gentlemen's Magazine*, li. 326, lxviii. 1155.—Lists of the Royal Society in *Philosophical Transactions*.—M'Culloch, *Literature of Pol. Ec.*, p. 258. —Cunningham, *Growth of English Industry and Commerce*, ii. 562.—Chalmers, *Estimate*, 1782, pp. 150 *et seq.*] J. D. R.

WALKER, AMASA, LL.D. (1799-1875). As economist and statesman, the Hon. Amasa Walker exerted hardly less influence on the thought of his time than his more renowned son, General Francis A. Walker. Amasa Walker was born in Woodstock, Connecticut; too feeble in health as a boy to be sent to college, he worked as a clerk in the village store, taught school in the Brookfield districts, and worked on the farm at home as his health permitted. In 1829 he went into business for himself and began to take a prominent part in the intellectual and political life of Boston. He

organised a Lyceum, and was its first secretary, and later its president.

He was identified with the railroad movement in America from the start. In 1835 he wrote articles and made speeches to secure railroad connection between Boston and Albany. In 1837 he was a director of the Western Railroad, and in 1839 he visited St. Louis and made a remarkable address and argument for railroad communication between Boston and the Mississippi. He also championed the anti-slavery movement from the beginning. In 1839 he became president of the Boston Temperance Society, and for thirteen years previously had been writing in support of total abstinence principles. Owing to ill-health he retired from business in 1840 on a moderate fortune saved from the financial wreck of 1837-1839, and from this time on for a period of thirty-five years he was prominent in public life. Several times he was a member of the Mass. state legislature, and once was sent to congress, where he devoted himself chiefly to monetary and financial questions. He was professor of political economy from 1842-1849 at Oberlin College, which he helped to found, and later (1861-1866) was lecturer on political economy at Amherst College, Mass. He was also a delegate to several peace conventions, and in 1851 was elected secretary of state in Mass., by the "free soil" and democratic vote. He had been brought up among federalists and was a Jacksonian democrat, but because of his views on paper money, banking, and the subtreasury, he joined the liberty party in 1844 and helped to create the "free soil" party in 1848 and the republican party in 1856.

Amasa Walker published a pamphlet in 1857, *The Nature and Uses of Money*, in which he adhered to the views of the currency school of Overstone, Torrens, and Norman in England. He favoured bank notes only provided fluctuations were controlled by the movement of metallic money. His main book on economics, *The Science of Wealth*, was published in 1866. It passed through many editions, was translated into Italian and well received in Europe and America, in which latter country it became popular as a text-book, and a student's edition was specially prepared. The thought is of the Smith-Ricardian type. Much space was given to money, in which the author elaborated the views stated in his earlier pamphlet. No mention was made of the wages-fund doctrine, and on the tariff question the free-trade side of the controversy was taken. Throughout the book is optimistic, and the author's views were permeated with an enthusiastic and healthy moral tone which commanded general respect.

For biographical data see Memoir of Hon. Amasa Walker by Francis A. Walker, reprinted from New England historical and genealogical register, April 1888. In addition to the books already quoted, Amasa Walker published many magazine articles, and, together with Wm. B. Calhoun and Chas. L. Flint, issued *Transactions of the Agricultural Societies of Mass.*, 7 vols., 1848-1854.] S. M'C. L.

WALKER, FRANCIS AMASA (1840-1897), son of the preceding, was born and died in Boston, Massachusetts. He graduated from Amherst College in 1860, and began the study of law, but in 1861 joined a volunteer regiment and served with distinction for the greater part of the civil war, retiring in 1865 with the brevet rank of brigadier-general. In 1869 he was made deputy special commissioner of the revenue, and placed in charge of the bureau of statistics at Washington. His efficiency in renovating the bureau proved his capacity both as administrator and as statistician, and led to his appointment to superintend the census of 1870, and ultimately that of 1880. Although his work in 1870, especially as regards the black population, was injured by the obsolete legislative provisions under which it was done, the general result was to gain for Walker a solid reputation both at home and abroad, which was heightened by the extraordinary scope and excellence of the monumental tenth census, directed by him in 1880.

In the midst of his statistical work, Walker was called into the general field of economics by an appointment as professor of political economy in the Sheffield Scientific School of Yale College in 1872. His aptitude for such studies was inherited; he had begun to write for the press upon money in 1857, had assisted his father, and had even lectured in his father's place in Amherst College as early as 1865. By his discussion of the results of the census of 1870, and by an excellent book on the Indian question, the fruit of a short service as commissioner of Indian affairs in 1871-72, he had secured the ear of the public, and his first important treatise, *The Wages Question* (1876), therefore attracted instant attention. In this book, as a part of his comprehensive review of the whole subject, Walker made a vigorous attack upon the wages-fund theory, arguing that wages are paid from the product of labour and not from accumulated capital. Neither Longe nor THORNTON had been so fortunate, either in the time or the manner of dealing with this question, and Walker had at once a large following, although the controversy was not ended. He also developed with great clearness the function of the *entrepreneur* as distinguished from the capitalist, and the distinction thus made between business profits and interest enabled him in his *Political Economy* (1883) to work out a law of business profits analogous to the law of rent, and thus to present a theory of distribution under which rent, interest, and profit, being severally determined each by a law of its own, labour is the "residual claimant" to all that remains, be it more or less. This bold generalisation became the subject of much

discussion, and was strongly defended by Walker in his later writings.

Walker's second important treatise, *Money* (1878), appeared at a critical moment in the history of the federal legislation upon currency, and by its broad and candid review of the whole field did much to establish opinion in favour of the specie standard, although neither in form nor intention a controversial publication. Its careful survey of the question of silver coinage, and its conclusions favourable to international bimetallism, together with his appointment in the same year as a representative of the United States in the International Monetary Conference at Paris, gave him an important place in the monetary discussions of the next twenty years. His efforts in favour of an international movement, as opposed to solitary action by his own country, ended only with his death, and the last year of his life was marked by the publication of his short résumé, *International Bimetallism* (1896).

In 1881 Walker was made president of the Massachusetts Institute of Technology, and for the rest of his life was occupied in developing the plan on which this important school was founded. His administration was brilliant, but did not diminish his activity as an economist. In 1882 he became president of the American Statistical Association, in 1885 was made president of the newly-formed American Economic Association, and in 1893 president-adjunct of the International Statistical Institute at its session in Chicago. Membership in many foreign learned societies, and honorary degrees from leading universities, both American and English, attested the scientific eminence which had long been freely accorded to him in every leading country.

Some persistent controversies will have to be settled before the permanent value of Walker's special contributions to economic theory can be determined. As a leader in economic discussion, and as a director and interpreter of statistical work, he must always hold a distinguished place. His influence in the promotion of economic study in the United States was of the first importance. His strong leaning toward a rational conservatism did not make him less ready to examine the basis of accepted theories. The ardour and strong conviction with which he took his part in debate were inspiring to others. His varied experience and knowledge of men gave him a rare familiarity with the actual movements of the world, and a vivid perception of the realities among which economic laws must work. As presented by him, therefore, theory seemed unusually practical and close to life, and commanded the attention of men of the most diverse scientific tendencies, and also of general readers. In personal intercourse, as well as in his written work, he was cheerful, courageous, and hopeful, fitted by nature to grapple with large subjects and to hold a leading place among men.

[An exhaustive bibliography of Walker's writings is given in the *Publications of the American Statistical Association*, June 1897, from which the following leading titles are taken; *Ninth Census*, 3 vols. 4to, and Compendium, 8vo (1872); *Statistical Atlas of the United States* (1874); *The Indian Question* (1874); *The Wages Question* (1876); *Money* (1878); *Money in its Relations to Trade and Industry* (1879); *Tenth Census*, 22 vols. 4to, and Compendium, 8vo (1881-88); *Political Economy* (1883); *Land and its Rent* (1883); "The Eleventh Census" (in *Quarterly Journal of Economics*, January 1888); *International Bimetallism* (1896).] C. F. D.

WALKER, Robert J. (1801-1869). American statesman, graduate of the university of Pennsylvania, 1819, was a lawyer at Pittsburg, Pa., 1822-26, removed to Mississippi and took an active part in politics, and opposed nullification. He became United States senator in 1836, and supported Jackson's administration. He became secretary of the treasury under President Polk, and was the author of the tariff act of 1846, based, according to the secretary, upon the following principles:

1. That no more money should be collected than is necessary for the wants of the government, honestly administered.

2. That no duty be imposed upon an article above the lowest rate, which will yield the largest amount of revenue.

3. That below such a rate discrimination be made descending in the scale of duties, or for imperative reasons the articles may be placed on the free list.

4. That the maximum of revenue duties should be imposed on luxuries.

5. That all minimum and all specific duties should be abolished, and *ad valorem* duties substituted in their place, care being taken against fraudulent invoicing and undervaluation, and to assess the duty upon the actual market value.

6. That the duty should be so imposed as to act as equally as possible throughout the union, discriminating neither for nor against any class or section.

The repeal of the English corn laws in the same year, and the Mexican and Crimean wars, co-operated with the reduction of tariffs to open new markets, and the period of 1846-1857—in which year duties were still further reduced—is regarded as unusually prosperous.

Walker was the first to propose the annexation of Texas (1844); he opposed the repeal of the Missouri Compromise (1854), became governor of Kansas (1857), but soon resigned because of opposition to the measures in behalf of slavery in that territory which received the sanction of the administration. He earnestly supported the union on the outbreak of the civil war, and was appointed in

1863 financial agent of the United States in Europe, where he succeeded in negotiating $250,000,000 (say £50,000,000) of the 5-20 bonds. He was for a time joint editor, and later contributor, to the *Continental Monthly*. He died in Washington, where he had acquired a large law practice on his return from Europe.

E. T. D.

WALLACE, ROBERT, D.D. (1697-1771), one of the royal chaplains for Scotland, and a statistical writer of some repute.

His principal work is, *A Dissertation on the Numbers of Mankind in Ancient and Modern Times, in which the Superior Populousness of Antiquity is Maintained* (1753). The *Dissertation*, which is vigorously argued both on historical and deductive grounds, was written before the appearance of D. HUME'S essay, *Of the Populousness of Ancient Nations*, but in an appendix Dr. Wallace endeavours to answer it.

Though he "succeeded in pointing out a few errors in Hume's statements, which were rectified in subsequent editions of the essay, he wholly failed to shake its foundations, or to prove in opposition to Hume that Europe was more populous in ancient than in modern times.

Exclusive of the above, Dr. Wallace published the following works: — *Characteristics of the Present Political State of Great Britain*, 8vo, London, 1758, and *Various Prospects of Mankind, Nature, and Providence*, 8vo, London, 1761. "These works embrace sundry speculations, which evince considerable boldness and ingenuity, on matters connected with the condition and prospects of society, the influence of public debts and taxes, the increase of riches, etc. It has been alleged that MALTHUS was under considerable obligations to some of Wallace's speculations."—M'Culloch, *Literature of Political Economy*.

WALLACE, THOMAS (1769-1844), afterwards Baron Wallace of Knaresdale. Entered parliament 1790; privy councillor, 1801; a member of W. PITT'S government, 1804. He was vice-president and chairman of the committee of the privy council formed to consider the state of foreign trade, 1818; master of the mint, 1823; raised to the peerage, 1823.

He had a high reputation as a politician well versed in industrial and commercial matters, and is referred to in M'Culloch's edition of the *Wealth of Nations*, vol. iv. p. 387, as having introduced, in 1821, several important changes into the navigation laws.

WALPOLE, SIR ROBERT, afterwards Earl of Orford (1676-1745), was a statesman conspicuous for his fiscal as well as his general policy. Entering parliament in 1701, he became secretary at war in 1708, and treasurer of the navy in 1710. But shortly afterwards, being found guilty by the House of Commons of "breach of trust and notorious corruption," he was expelled the House and sent to the Tower. By another rapid change of fortune, owing to the fall of Bolingbroke, he became chancellor of the exchequer and first lord of the treasury in 1715. Difficulties soon arose, however, and in 1717 Walpole resigned office, bringing in a sinking fund bill on the day of his resignation. Three years later he accepted the post of paymaster-general, and after the collapse of the SOUTH SEA scheme the public looked to him to restore order in the national affairs. In 1721 he became first lord of the treasury and chancellor of the exchequer, and from this time until his final retirement in 1742 he was supreme, and practically sole controller of the destinies of England.

In some respects the economic measures of Walpole were in advance of his time, but his handling of the public debt and his excise schemes have been severely censured. When Walpole first came to the treasury in 1717, the national debt stood at £54,000,000, bearing an average interest of between 6 and 7 per cent. He produced a plan for reducing the interest and establishing a sinking fund for the redemption of the principal. But the net result in ten years was only a decrease of the debt by about two and a half millions. Professedly adhering to the policy of the sinking fund, Walpole effected a further reduction of interest from 5 to 4 per cent. Yet in contradiction to his own policy, he proposed in 1733 to take half a million from the sinking fund for the service of the year. To disarm opposition, he threatened parliament that if they would not let him have the money he would raise the land tax from one to two shillings in the pound. After this the sinking fund was constantly invaded, so that by the end of 1739—after seventeen years of peace—the whole sum extinguished was no more than £8,328,000, leaving a capital debt of nearly £47,000,000.

When Sir John BARNARD proposed in 1737 to reduce the interest on the national debt to 3 per cent, and to enforce the compulsory redemption of certain annuities existing at a higher rate, Walpole opposed the scheme. He not only argued that the reduction of the income of a considerable number of persons by one-fourth would prove a serious loss and embarrassment, but foreseeing an early war with Spain, he was anxious to keep on good terms with the moneyed interest, and to maintain the public faith with the national creditors.

Walpole's commercial policy was, generally speaking, wise and far-seeing. As early as 1721 he placed this important reference to the extension of commerce in the king's speech: "It is very obvious that nothing would more conduce to the obtaining so public a good, than *to make the exportation of our own manufactures and the importation of the commodities used in the manufacturing of them, as practicable and as easy as may be.*" This is regarded as the first distinct assertion of those enlightened

trade principles which half a century later found expression in Adam Smith's great work. Moreover, in this same session of 1721 Walpole persuaded parliament to remove the export duties from one hundred and six articles of British manufacture, and the import duties from thirty-eight articles of raw material.

In 1730 Walpole passed an act allowing the Carolina and Georgia planters to export their rice direct to any port in Europe south of Finisterre, provided they sent it in British ships, manned by British sailors. Consequently, the rice of the American plantations beat the rice of Egypt and Northern Italy out of the markets of Europe. At a later stage Walpole carried a measure for allowing the West India traders to export sugar direct to foreign countries, provided it were in British bottoms, and without first landing it in British ports. The result of these and similar measures was, that in twenty-five years after Walpole left the treasury, the total export trade from England with all parts of the world had risen from £6,000,000 per annum to more than £12,000,000. The minister declared that his object had always been to encourage colonial commerce because the greater the prosperity of the colonies the greater would be their demand for English goods.

Walpole's scheme for extending the excise was the one which of all others was the most canvassed. Its most important feature, the facility for warehousing imported goods for re-exportation free of duty, had been for some time in operation in Holland.[1] The bill introduced to the House of Commons in 1733 was in effect one to turn the customs duty on the importation of tobacco into an excise duty on its consumption. Walpole claimed that this policy, besides simplifying rates and putting an end to frauds upon the revenue, would practically make London a free port, and constitute it the market of the world.

But the Tobacco Bill was violently opposed. The country rang with the cry of "no slavery, no excise, no wooden shoes." Members of parliament were blockaded at the House of Commons, and the whole nation was in an uproar. Yet such was the personal power of Walpole that the first resolution was carried by 266 to 205. The opposition waxed fiercer and fiercer, until on the main question the government majority sank to 17. Then, perceiving that the act could not be carried into execution without an armed force, the minister abandoned the bill. His sensible statesmanship came into play, for he knew that England could be governed without an excise on tobacco; and while he was perfectly convinced of the wisdom of his fiscal policy, he foresaw greater dangers to the state by insisting on its adoption than could possibly result from its postponement.

[1] The "famous excise scheme of Sir Robert Walpole" is commended by A. Smith (*Wealth of Nations*, bk. v. ch. ii.; M'Culloch (*Literature, Pol. Econ.*, p. 324), speaks of it also in the highest terms, and says "its adoption would have been of the greatest advantage to the commerce and revenue of the country." (See BONDED WAREHOUSES; WAREHOUSING SYSTEM.)

Taking his fiscal policy as a whole, economic writers agree that Walpole was the greatest commercial minister that the country had seen down to his own time. Yet besides other rebuffs which he sustained, in 1723 he was compelled to withdraw the grants for WOOD'S halfpence on the storm raised by Swift's DRAPIER'S LETTERS, and he lost credit by his peaceful foreign policy. After he went to the Upper House charges of bribery were brought against him, but although a committee of investigation reported against him, the charges were ultimately dropped. There was in this great statesman a strange blending of personal power with liberal instincts.

[Coxe's *Memoirs of Sir Robert Walpole.*—John Morley's *Walpole* in "Twelve English Statesmen." The Histories of Stanhope and Lecky.—Somers's *Tracts.*] G. B. S.

WALRAS, ANTOINE AUGUSTE (1801-66) was born at Montpellier. In 1831 he became professor of rhetoric at the college of Évreux, and soon afterwards published his first book on political economy. In 1835 he went to Paris as professor of political economy at the Athénée, and was afterwards professor of philosophy and of French literature at Caen.

A. A. Walras was one of the first economists who perceived that value was not determined by utility. He was led to the study of economics from the study of the theory of property. The key to his system is clearly given in one sentence in his earliest book. "Mais l'idée de l'échange implique celle de la propriété, et la propriété elle-même suppose un fait très important et qui jusqu'ici a malheureusement échappé à l'observation des économistes; c'est la *limitation* de tous les objets qu'on peut s'approprier et qu'on peut donner ou recevoir en échange." He proceeds to explain that value does not come from utility or from cost of production, but from *rareté*, or as we should now say marginal utility (see FINAL DEGREE OF UTILITY, and MARGIN). But it is not quite certain that he completely appreciated exactly what this *rareté* or marginal utility is. His more precise description of it is not very satisfactory. "La rareté n'est et ne peut être autre chose que le rapport qui existe entre la somme des biens limités et la somme des besoins qui en réclament la jouissance." That is to say, in mathematical language, he regards final utility as a ratio rather than as a differential coefficient. On the other hand, there are many passages in his writings in which he appears to be on the point of enunciating in precise language the more correct views that are now associated with the name of his son LÉON WALRAS (*q.v.*) and JEVONS. It is difficult to form an estimate of the importance of his work, but it is probable that political economy would have got on the right lines at an earlier stage than it did if economists had been properly conversant with his works. As a critic of the works of others he is acute rather than sympa-

thetic, but always generous. His writings are unfortunately very rare; the subjoined list of his published economic writings is possibly very imperfect; but a perusal of his earliest book is quite sufficient to show that he was a man of great originality of thought, and that he expressed his views in a clear style. Probably some of his unpublished ideas are to be found in the writings of his son.

De la nature de la richesse et de l'origine de la valeur, Paris, 1831.—*De la connexité des connaissances humaines et des progrès scientifiques, en général, et en particulier de l'influence que l'étude de l'Économie politique est appelée à exercer sur l'avancement des sciences morales et historiques*, Evreux, 1833 (the opening lecture of his course on political economy).—*De la richesse sociale, ou de l'objet de l'Économie politique*, Paris, 1848.—*Théorie de la richesse sociale, ou résumé des principes fondamentaux de l'Économie politique*, Paris, 1849.—*Mémoire sur l'origine de la valeur d'échange ou Exposition critique et réfutation des opinions les plus accréditées chez les Économistes* (read at the Académie des sciences morales et politiques, 15th September 1849, and published in their proceedings).—*Considérations sur la mesure de la valeur et sur la fonction des métaux précieux dans l'appréciation de la richesse sociale* (published in the *Revue mensuelle d'Économie politique*, vol. 5). C. P. S.

WALRAS, MARIE ESPRIT LÉON (b. 1834), the son of A. A. WALRAS, was born at Évreux. He studied mathematics and published his first book on political economy in 1860, was professor of political economy at Lausanne from 1870 till 1892, when he resigned and was succeeded by Vilfredo Pareto. During the years 1866-68 he edited "*Le Travail, organ international des intérêts de la classe laborieuse revue de mouvement cooperatif*," and wrote many articles in it.

M. Léon Walras may be justly considered as the heir to his father's ideas. How much he derived from his father is a matter of conjecture, because his own generous expressions in reference to his father's work probably overstate his indebtedness. Yet in his earlier writings it is clear that the debt is a large one in spite of the fact that he has succeeded in constructing and developing an economic system where his father failed. In spite of the lucid style of A. A. Walras's books, considerable doubt is still left in the mind of the reader as to the precise nature of *rareté*. M. Léon Walras, using mathematical symbols, succeeded in making the conception a clear one; and it is as a mathematical economist that M. LéonWalras is most widely known. It is difficult for the younger generation, at the present day, to realise what was the state of economic science in the days before W. S. JEVONS in this country, and M. Walras on the continent, familiarised students with the use of exact reasoning in economic science expressed in the elegant language of mathematics. Errors in pure economics are due to either incorrect assumptions or invalid deductions. Many writers succeed in entangling their assumptions and deductions. The use of mathematical symbols enables the reader to see clearly what the underlying assumptions are, and then to follow easily the logical deductions from those assumptions. The use of mathematics is the best means of getting rid of both inaccuracy of assumption and looseness of deduction.

The greatest achievement of M. Léon Walras is his discovery of the fact that value in exchange is determined by marginal utility or *rareté* (see FINAL DEGREE OF UTILITY; MARGIN). He shares this honour with H. H. GOSSEN (*q.v.*) and W. S. JEVONS. The question of the priority of the respective discoveries of these three economists is unimportant because each made his discovery without being aware of the work of the others. M. Walras apportions the honours as follows:—

"Gossen et M. Jevons ont trouvé avant moi l'expression mathématique de l'utilité et formulé la condition d'un maximum d'utilité dans l'échange, par un individu, d'une marchandise contre une autre; c'est une chose incontestable. M. Jevons semble disposé à concéder à Gossen une certaine supériorité sur le premier point et à se l'attribuer à lui-même sur le second. Il a raison: Gossen n'a formulé que la condition du maximum absolu; c'est lui, Jevons, qui, le premier, a formulé la condition du maximum relatif coexistant avec l'égalité de l'offre et de la demande. Seulement ils se sont arrêtés là tous les deux en ce qui concerne même le cas de l'échange de deux marchandises l'une contre l'autre en nature. Ni Gossen ni M. Jevons n'ont même abordé la question de la détermination du prix courant de chacune de ces deux marchandises l'une en l'autre en supposant une nombre indéfini d'échangeurs en présence. Or c'est là précisément l'une des deux questions par moi résolues dans mon mémoire intitulé "Principe d'une théorie mathématique de l'échange" (Août 1873) et d'où il résulte que l'on obtient le prix courant par la hausse en cas d'excédent de la demande effective sur l'offre effective et par la baisse dans le cas contraire."

The equations of statical equilibrium are now the commonplaces of economic text-books, but in the matter of the dynamics of economics—how these equations are attained in practice—M. Léon Walras has been subjected to some criticism (see an article by Professor Edgeworth in the *Revue d'Économie Politique*, Jan. 1891).

M. Léon Walras's system of economics is contained in his *Éléments d'économie politique pure*, *Études d'Économie politique appliquée* and *Études d'économie sociale*. It is difficult to exaggerate the advantage of making in this manner a vivid distinction between pure and applied economics, and also again between applied economics and what may be termed politics. If all economists had been careful to make this distinction, much of the abuse that has fallen on the "dismal" science would have been spared us.

On four subjects M. Léon Walras's views are of peculiar interest, because they are not altogether in agreement with those generally held.

On the question of land M. Walras is with the land nationalisers. He discusses Gossen's views most exhaustively, and then develops a scheme of his own by which the state is to purchase the land. His treatment may be commended to politicians.

On the question of currency he has a scheme of his own. It is that of a gold currency, supplemented by a token currency of silver in such a manner as to keep the level of prices steady. In M. Walras's own words "Tout serait pour le mieux si la rareté de la marchandise numéraire et monnaie variait comme la rareté moyenne de la richesse sociale. L'or, pas plus qu'aucune marchandise quelconque, ne saurait prendre naturellement une telle variation de rareté et de valeur; mais on peut la lui imprimer artificiellement en adjoutant à la circulation monétaire ou en en retranchant, selon les besoins, des écus d'argent. Et c'est à quoi j'ai démontré qu'on arriverait précisément en faisant ces additions ou ces soustractions de façon à ce que le prix moyen de la richesse sociale en la marchandise numéraire et monnaie ne variât plus. Sans doute il est évident qu'on ne peut pas ajouter à la circulation monétaire ou en retrancher des écus d'argent de façon à prévenir toute variation du prix moyen de la richesse sociale en or; mais il semble qu'on pourrait le faire de façon à ramener périodiquement ce prix moyen à la constance en adjoutant des écus quand il tendrait à hausser."

Finally, on the allied questions of both justice and taxation M. Walras's views are of great interest. Roughly speaking, he attempts a synthesis of interest and justice, and would solve the question of taxation by the method of land nationalisation. Any account of his views on these points that could be given here would necessarily be so brief as to be misleading.

The general characteristics of M. Walras's writings are (1) the use of the mathematical method wherever additional clearness can be attained thereby; (2) great care in distinguishing theory and practice; (3) a great interest in what, for want of a better word, may be termed sociology. The subjoined bibliography will serve to indicate the great number of his interests, and the fact that many of his articles have appeared in newspapers is a guarantee of his interest in the topics of the day. M. Léon Walras cannot be considered to belong to any special school of economics, unless he is a founder of one; his attitude is scientific. In one of his latest publications he says, "We count to-day I do not know how many schools of political economy. . . . For me, I recognise but two: the school of those who do not demonstrate, and the school—which I hope to see founded—of those who demonstrate their conclusions." In every way this utterance is thoroughly characteristic of the man.

As to the final effect of M. Léon Walras's works, it is perhaps at present too early to judge; but whatever may be the judgment of posterity in regard to some of his views, it is clear that in the history of economics his name will always be associated with those of Gossen and Jevons as one of the discoverers of the key to economic science.

Note.—In many cases M. Walras has incorporated in his books articles which have been previously published. The articles which are substantially incorporated in this way are referred to under the book, and are omitted from the list of separate articles.

L'économie politique et la justice. Examen critique et réfutation des doctrines économiques de M. P.-J. Proudhon, précédés d'une *Introduction à l'étude de la question sociale*, Paris, 1860.—*Théorie critique de l'impôt*, précédée de *Souvenirs du Congrès de Lausanne*, Paris, 1861.—*De l'impôt dans le canton de Vaud.* Mémoire auquel un quatrième accessit a été décerné ensuite du concours ouvert par le conseil d'État du canton de Vaud sur les questions relatives à l'impôt, Lausanne, 1861.—*Les associations populaires de consommation, de production et de crédit.* Leçons publiques faites à Paris en janvier et février, 1865, Paris, 1865. — *Des opérations de la Caisse d'escompte des associations populaires*, Paris, 1866.—*La Bourse et le Crédit à Paris*, Paris-Guide, 1867.—*Discours d'installation* en qualité de professeur ordinaire d'économie politique à l'académie de Lausanne, 1871. — *Éléments d'économie politique pure ou théorie de la richesse sociale*, Paris, 1st ed. 1st part, 1874; 2nd part, 1877; 2nd ed., Paris, 1889; 3rd ed., Paris, 1896. The second edition contains *Théorème de l'utilité maxima des capitaux neufs* (Revue d'économie politique, June 1889). The third edition contains *De l'échange de plusieurs marchandises entre elles* (Société des Ingénieurs Civils de Paris, 1890), *Théorie géométrique de la détermination des prix* (Recueil inaugural de l'Université de Lausanne, 1892), *Observations sur le principe de la théorie du prix de MM. Auspitz et Lieben* (Revue d'économie politique, 1890), and *Note sur la réfutation de la théorie anglaise de fermage de M. Wicksteed* (Recueil publié par la Faculté de Droit de l'Université de Lausanne, 1896). — *Théorie mathématique de la richesse sociale*, Paris, 1883, contains *Principe d'une théorie mathématique de l'échange* (Proceedings of the Académie des Sciences morales et politiques, Jan. 1874), *Correspondance entre M. Jevons et M. Walras* (Journal des Économistes, June, 1874), *Équations de l'échange, Équations de la production, Équations de la capitalisation et du crédit* (Proceedings of the Société vaudoise des sciences naturelles, Nos. 76 and 77), *Théorie mathématique du bimétallisme* (Journal des Économistes, 1876, 1881, 1882), *Théorie mathématique du billet de banque, Théorie mathématique du prix des terres et de leur rachat par l'état* (Proceedings of the Société vaudoise des sciences naturelles, Nos. 83 and 85). The first four of these articles have been translated into Italian, sub tit.: *Teoria matematica della ricchezza sociale* 1878, and into German, sub tit.: *Mathematische Theorie der Preisbestimmung der wirthschaftlichen Güter*, Stuttgart, 1881.—*Études d'économie sociale* (*Théorie de la répartition de la richesse sociale*), Paris, 1896, contains *Socialisme et libéralisme* (Le Travail, 1866, 1867), *Théorie générale de la société* (lectures delivered at Paris, 1867-68), *Méthode de conciliation ou de synthèse* (Revue Socia-

liste, 15 April 1896), *Théorie de la propriété* (Revue Socialiste, 15 June, 15 July, 1896), *La question sociale* (Gazette de Lausanne, 22 July, 1880), *De la propriété intellectuelle* (*Ibid.* 10, 11, 12 June, 1880), *Théorie mathématique du prix des terres* (see above), *Un économiste inconnu, H. H. Gossen* (Journal des Économistes, April, May, 1885), *De l'impôt sur le revenu et de l'impôt sur le capital* (part of the two brochures on taxation, see above, 1861), *Le cadastre et l'impôt foncier* (Bibliothèque universelle, Nov. Dec. 1873), *Le problème fiscal* (Revue Socialiste, 15 Oct., 15 Nov. 1896). — *Études d'économie politique appliquée*, Paris, 1898, contains *Monnaie d'or avec billon d'argent régulateur* (Revue de droit international, Dec. 1884), *Mesure et régularisation des variations de valeur de la monnaie* (Société vaudoise des sciences naturelles, 1885), *Théorie de la monnaie* (Paris, 1886), *Le problème monétaire* (Revue d'économie politique, 1887; Gazette de Lausanne, 24 July 1893, 27 Feb. 1894; and Revue Socialiste, 15 July 1895), *L'état et les chemins de fer* (Revue du droit public et de la science politique, May-June, July-August 1897), *De l'influence de la communication des marchés sur la situation des populations agricoles* (Société vaudoise d'utilité publique, 1874), *L'économique appliquée et la défense des salaires* (Revue d'économie politique, December 1897), *Théorie du libre-échange* (*ib.*, July 1897), *Théorie du crédit* (*ib.*, Feb. 1898), *Théorie mathématique du billet de banque* (Société vaudoise des sciences naturelles, 1879), *La Caisse d'épargne postale de Vienne et le Comptabilisme social* (Revue d'économie politique, March 1898), *La Bourse, la spéculation et l'agiotage* (Bibliothèque universelle, March and April 1880), *Esquisse d'une doctrine économique et sociale.* The principal memoirs and articles not included above are—*Giornale degli economisti*, "Un nuovo ramo della matematica," Padua, 1876. — *Annals of the American Academy of Political and Social Science*, "Geometrical Theory of the Determination of Prices," Philadelphia, July 1892.—*British Association Report*, "Solution of the Anglo-Indian monetary problem," 1887 (Revue d'économie politique, 1887).—*Indépendant de la Moselle*, 1863.—"Principes de la théorie des richesses, par M. Cournot," 13 July.—"De la constitution de la propriété en Algérie," 2, 21 Sept., 12 Oct.—"De l'esprit communal et de la routine administrative, par M. de Labry."—*Bibliothèque universelle*, "De la culture et de l'enseignement des sciences morales et politiques," July, Aug., 1879.—*Journal des économistes* (1860-85), "Paradoxe économique. Que le sens commun n'est point le criterium de la science en général, ni, en particulier, celui de l'économie politique."—*Gazette des tribunaux suisses* (1875-76), "La loi fédérale sur l'émission et le remboursement des billets de banque," "La loi fédérale sur le travail dans les fabriques."—*La Presse* (1860-61), "Des octrois;" "De la mise en valeur des biens communaux"; "De la cherté des loyers à Paris"; "La Bourse et le développement du capital"; De l'élévation du taux de l'escompte," "à M. Félix Solar" (1865-66), "Les sociétés coopératives et la législation," "Le mouvement d'association et la politique libérale," "L'association à la française."—*Le Travail* (1866-1868)—"Programme économique et politique"—"Société coopérative immobilière"—"De la cherté du pain et de l'établissement de boulangeries coopératives"—"A propos d'un article de M. Horn"—"Discussion sur les associations coopératives à la Société d'économie politique de Paris"—"Des doctrines en matière d'association coopérative"—"Énoncé de principes relatifs aux associations coopératives"—"Le crédit gratuit réciproque"—"La liberté des Sociétés"—"Le futur parti"—"De la gratuité par la réciprocité dans les banques d'échange"—"Les sociétés de résistance"—"Discussion sur les coalitions et les grèves à la Société d'économie politique de Paris"—"Le projet de loi sur les sociétés à capital variable"—"La discussion du corps législative sur les sociétés à capital variable"—"Syndicat du crédit à Paris"—"Congrès international coopératif"—"Société d'économie politique de Paris"—"Les syndicats de garantie mutuelle"—"De l'éducation des filles"—"La science et le socialisme"—"La sécurité générale"—"Le socialisme scientifique"—"Le mouvement d'instruction populaire"—"Les réunions publiques." See also a bibliography given in the *Revue du Droit Public et de la Science Politique*, May-June 1897. C. P. S.

WALSH, Sir John Benn (1798-1881), created Lord Ormathwaite (1868), an Irish, Welsh, and English landowner, and M.P. for Sudbury (1830-34) and Radnorshire (1840-68), wrote several Tory essays in which he combated De Tocqueville's fatalism and Macaulay's optimism with arguments resembling those afterwards used in Sir H. Maine's *Popular Government*. His economical work—*Poor-Laws in Ireland considered in their Probable Effects upon the Capital, the Prosperity, and the Progressive Improvement of that Country* (1830, 3rd ed., 1831), opposed the introduction effected in 1838 of poor-laws into Ireland; since (1) there was no middle class to work them properly, and as for landlords, "no man of education with the habits and feelings of a gentleman could submit to the endless drudgery, the constant sifting of unfounded claims" (p. 74); (2) therefore they would be used to spoil the landlords and drive away capital, and (3) increase improvident marriages, which were Ireland's bane. His positive remedies were: leave all to time; let the landlord do without the middleman lessee, and hire good small farmers, etc. Despite his aristocratic bias he was an able, judicious writer. J. D. B.

WALSH, Richard Hussey (1825-1862), born in King's County, Ireland, was educated altogether by his mother until he entered Trinity College, Dublin, where he highly distinguished himself in mathematics, obtaining a gold medal at the degree examination of 1846, when, it is interesting to observe, Cliffe Leslie also graduated with high honours in logic and ethics, and W. E. Hearn with like distinction in classics. In 1851 Walsh was elected by

competitive examination to the Whately professorship of political economy; his professorial term expired in 1856, when he was succeeded by J. E. CAIRNES. He afterwards went out to Mauritius as a commissioner of education, and, whilst there, was also employed in organising the postal service and taking the census of the island. He died at Port Louis in the 37th year of his age.

He was a man of sincere and earnest nature, and of great intellectual solidity, clearness, and force. He knew accurately whatever he professed to know. His most important publication was an *Elementary Treatise on Metallic Currency*, being the substance of a course of lectures delivered in Trinity College, 1853, which is still well worth reading for its statement and proof of the true doctrine of money. He was for some years an active member of the statistical and social inquiry society of Ireland, and contributed to its *Transactions*, besides other papers, the following: "The price of silver of late years does not afford an accurate measure of the value of gold" (read also before the British Association in 1855), and "Observations on the gold crisis, the price of silver, and the demand for it" (1856).

[This notice is founded on personal knowledge and family communications.] J. K. I.

WANTS. See DEMAND; LUXURY.

WARD, BERNARDO (died about 1760). Irish by descent, Ward travelled from 1750 to 1754 through Europe on a mission from King Ferdinand VI. of Spain to study the means of remedying the state of the poor, and to promote trade and manufactures in Spain. On his return he was appointed minister of trade and of the mint, and director of the royal glass works in San Ildefonso.

He published the results of his travels of economic exploration in the *Proyecto económico en que se proponen varias providencias* (measures) *dirigidas á promover los intereses de España*, published posthumously in 1762. It is, perhaps, the best digested and most methodical book written on these topics in Spain during the last century, giving a clear insight into the causes of the decay of the country, which, like his predecessors, UZTÁRIZ and ULLOA (*q.v.*), Ward ascribes to the neglect of trade and industry, and to the absurd system of taxation which had prevailed for more than two centuries. Like them, Ward is a mercantilist, but more discriminating and less extreme; thus he allows that, Spain being a silver-producing country, consideration ought to be taken of this fact when examining the figures of the balance of Spanish trade (p. 131); he concludes that a wholesale prohibition of foreign articles ought to be deprecated.

As measures of reform, Ward suggests:—

1. The appointment of *Comisarios de Visita*, entrusted with the personal management of a thorough enquiry made on the spot throughout Spain and America, and directed to point out the public works which ought to be done by the state, and those which ought to be left to the care of municipalities or private persons.

2. The foundation by the state of a Land Bank taking money on deposit at 4 per cent, and lending it out on mortgage.

3. The suppression of the exorbitant export duties levied on Spanish manufactures sent to the colonies.

4. Exemption of national manufactures from inland taxation.

5. Inviting industrious foreigners to settle in Spain.

6. The adoption of the English system of free inland trade in corn and bounties on export.

7. The suppression of crafts and brotherhoods (*Gremios y hermandades*), of the privileges of the MESTA, and of all exclusive privileges generally.

For America he proposes, amongst other measures, to grant natives the freehold of certain portions of land.

Ward's views on the poor were first made known in a tract called *Obra Pia*, published in 1750, and which is added as an appendix to the *Proyecto Económico*. He considers that the total sums distributed in Spain as alms would afford ample means to provide for the poor in a more rational and efficient way; excepting, perhaps, some initial funds needful to build hospitals in places devoid of these institutions, these might be obtained by state LOTTERIES. All the moneys thus collected, or hitherto given out to beggars, ought to be henceforth made over to the *Hermandad de la Obra Pia*, a brotherhood to be founded comprising all charitable people, especially the clergy, and to be locally managed by the parochial clergy. Disabled poor were to receive alms or outdoor relief in the place of their birth, under a law analogous to the English law of parish settlement, after a delay of six months. Able-bodied poor and vagrants ought to be shut up in hospitals and obliged to work for their livelihood.

Ward often holds up England as a model; thus he proposes the foundation of a *Junta de Mejoras* (board of improvements) on the lines of the Royal Society of Dublin. E. CA.

WARD-PENNY. This word has two entirely different significations. (1) The Custumary of the Soke of Rothley (*Archæologia*, xlvii. 128) explains it thus: *Wardpeny. Hoc est cum animalia capta sint per ministros regis.* In this sense, therefore, it is a payment to free cattle impounded by the king's officers, and in the *Rotuli Hundredorum* (ii. 472) the lord of a certain manor pays probably on this account, *xxxij de wardpeni domino regi.* (2) In Domesday Book (i. 190) there is an entry: *reddebant warpenam . . . aut custodiam faciebant;* but the Rothley Custumary applies

the term *wardewyte* to the *nummus . . . pro warda*, the payment in lieu of keeping watch and ward. *Warda et Wardpani* occur in the charter of Henry II. to Waltham Abbey. (*Monast. Anglic.* (ed. 1673), ii. 14 *b*. 40.)

R. H.

WARDEN OF THE STANDARDS. See STANDARDS.

WARDS. Under the feudal system each knight's fee was held by the service of attending the overlord in war for forty days in each year if required, and therefore, on the death of the holder of a *feodum militare*, leaving children under age, some one was needed who could undertake the service due from the land during the minority of the eldest son, or until the heiress could be married to a husband who could perform the requisite knight-service. The person who assumed this lucrative responsibility, and became guardian in chivalry in the case of tenancies *in capite*, was usually the king himself, in other cases the overlord. The guardian took the profits of the land during the minority, providing for the performance of the required services, maintaining and educating the heir, and retaining for himself the surplus. When male heirs reached the age of twenty-one, or females that of sixteen, they could, on payment of half a year's profits, claim to be put in possession of their property.

For other details, see KNIGHT'S SERVICE; MARRIAGE (FEUDAL SYSTEM) and MARITAGIUM. R. H.

WAREHOUSES. See WAREHOUSING SYSTEM.

WAREHOUSING SYSTEM.

Warehousing System, p. 657; Warehousing System, United States, p. 658.

WAREHOUSING SYSTEM.—Technically speaking, warehoused goods are those which on importation or manufacture become liable to customs or excise duties, and hence are placed in bond for the safety of the revenue (see BONDED WAREHOUSES); and because it is to the interest of both importer and consumer that the duties should not be levied until the goods are wanted for consumption, the privilege of having the goods retained in the custody of the crown was highly valued, not only because the payment of the tax, which often far exceeded the original value of the article, was thus deferred, but because the arrangement saved the duty on that which was wasted or deteriorated. It also avoided the necessity for claiming a drawback on that which might be re-exported, and therefore was not amenable to payment of duty.

It hence became necessary that there should be set times and places at which the landing, examination, and assessment of duty should take place; naturally the goods would remain there until wanted by the retailer or ultimate purchaser. The maximum of security and convenience was attained in the docks (see DOCK), where spacious quays and warerooms were available and guardianship easily exercised. For many purposes, however, it was desirable to have readier access to the goods, and this would be obtained by their deposit at some of the numerous warehouses or bonding places, many of which had existed before docks were formed. As trade extended, a fierce competition, in London at least, sprung up between the legal quays or sufferance wharves and the docks. This pertained not only to goods on which the crown had a charge, but to all others as well, for it is evident that to secure such payments as were due on some things, the examination of all became requisite, otherwise none would have been taxed. The restriction, therefore, of absolutely free landing of even free goods was essential, and the saving of labour and expense led to the most convenient places being chosen, and the retention of the goods in the warehouses there, until they could be made use of, naturally followed.

It is in London, Liverpool, and the larger ports that the warehousing system has reached its greatest development. There the merchant or owner has his goods at all times practically as much under his own control as at his own door. For the purposes of sale they can be sampled or inspected, while every facility exists for speedy removal and distribution when sold. They can be stored in buildings or floors most suited to their proper preservation; insurance against fire or depredation can be effected completely, all this at a minimum of cost with freedom from the responsibility of personal supervision or the trouble of constant reception and delivery. It affords a good instance of DIVISION OF LABOUR (*q.v.*), without which the large and intricate operations of trade could scarcely be carried on. At the same time it has tended to the security of the revenue and lessened the cost of collection. It used to be thought necessary to have warehouses of "special security" carefully guarded by the customs or excise officers. Now the same care which is needed for the custody of the goods serves in great measure to save risk of dutiable goods from passing into the hands of those who evade payment of the duties. A comparatively cursory inspection serves to discover any error which has taken place in their removal, and should such occur it is easily traced and rectified.

The process is very simple. On the arrival of the ship the merchant or his agent having, on entering his goods at the custom house, declared the warehouse in which they are to be placed, they are either landed on the quay adjacent to the place of storage or transhipped into barges or trucks for conveyance to their destination. When wanted, a delivery order, preceded by payment of duty, where such is leviable, admits of ready despatch to any needed place at home or abroad, by any suitable or desired means of conveyance, with such economy of time and cost as either cheapens the price or enhances the profit of the transaction.

Two circumstances have contributed to the

removal of many of the warehouses to a distance from the place of sale. With the enlargement of trade it has been necessary to go further afield, and with the increased size of the vessels to build docks more suitable for their reception. For London ships there are warehouses as far down the river as Tilbury, 22 miles, and wharves close up to London Bridge. In Liverpool they are being driven further and further up the Mersey, and now, by means of the ship canal, are provided as far up as Manchester.

London has 7 docks with numerous warehouses, 8 legal quays, and 36 sufferance wharves, at which both free and dutiable goods may be landed and warehoused. It has also 38 up-town warehouses and vaults to which dutiable goods may be removed for warehousing—in all 112 such places for the deposit of goods on which the duties are not yet paid. Liverpool has 114, and other towns 476—making 702 for the United Kingdom.

The excise warehouses, 419 in number, are mainly for retaining beer and spirits produced at the breweries and distilleries until the duties are paid, but some of them are open for the reception of customs dutiable goods, and *vice versa*. British spirits can be bonded in customs warehouses (see BONDED WAREHOUSES). S. BO.

WAREHOUSING SYSTEM, UNITED STATES. Until 1842 importations of goods into the United States were given credit upon the entry of merchandise. By the Tariff Act of 30th August 1842, § 12, it was provided that the duties should be paid in cash. In case of failure the goods should be taken possession of by the collector of customs and deposited in public stores, to be sold at public auction if not redeemed before sixty days. A careful investigation was then made of the warehousing system as it existed in Great Britain, France, and Belgium, resulting in the act of 6th August 1846, establishing a complete warehousing system, and permitting goods to remain in bond in public warehouses for a period of not longer than one year (see *Report of Secretary of the Treasury*, 8th December 1847, where interesting facts are given in regard to the system as then developed in England; also *Report on the Warehousing System*, 22nd February 1849). This system was again extended 28th March 1854, providing for the establishment of private warehouses, and extending the period of deposit to three years. In 1861 "a severe attack was made on this system as merely another method of giving credits on imports." It was defended on the ground that "it gave our merchants the advantage of storing on this side instead of the other, and making our cities (instead of foreign ports) the great storehouse of the country's goods." In spite of certain modifications the principle prevailed. At the present time there are six classes of warehouses designated as follows:—

1. Stores occupied by the United States. 2. Stores occupied by importers exclusively for the storage of goods imported by or consigned to them, or purchased by them in bond. 3. Warehouses occupied for the general storage of goods. 4. Yards or sheds for storage of heavy and bulky goods. 5. Bins or parts of buildings for the storage of imported grain. 6. Warehouses exclusively for the manufacture of medicines, cosmetics, and the like, and warehouses exclusively for the cleaning of rice.

[See for present administration, W. Elmes, *Law of the Customs*, ch. x., for early period.—Bolles, *Financial History of the United States, 1789-1861*, ch. ix.; also "History of Tariff Administration in the United States," by J. D. Goss, in *Studies in History, Economics, and Public Law*, Columbia College, New York, vol. i. No. 2.]

D. R. D.

WARRANDICE (Scots law). In a conveyance, an obligation to indemnify against loss arising from the act of the grantor or from defect in the title as the case may be. A. D.

WARRANTS are documents of title referring to goods stored in docks and warehouses. They are not, strictly speaking, negotiable instruments, but owing to the provisions of the Factors Act 1889, persons advancing money on the security of such warrants have been made more secure than they were under the former law (see COMMERCIAL INSTRUMENT; FACTORS ACTS). E. S.

WARRANTY. In the Sale of Goods Act 1893 warranty as regards England and Ireland is defined as an agreement with reference to goods which are the subject of a contract of sale, but collateral to the main purpose of such contract, the breach of which gives rise to a claim for damages, but not a right to reject the goods and treat the contract as repudiated. As regards Scotland a breach of warranty shall be deemed to be a failure to perform a material part of the contract.

[Anson, *Contracts*, Oxford, 1893, gives six different senses in which the word has been used.—Chalmers, *Sale of Goods Act 1893*, London, 1894, discusses the meaning of the term at length.] J. E. C. M.

WARREN, JOSIAH (1799-1874), was a citizen of the New Harmony of R. OWEN (1825-26). He then opened a "time store" or "cost grocery" in Cincinnati (1827); then in Tuscawaras; then in Mount Vernon; then (1842-44) in New Harmony. In 1847 he snatched four families from the Fourierist wreck at Clermont, and started an "equitable village" "on the principle," says M. Conway, "that each person shall mind his own business," first in Utopia, then (1851) in Modern Times, Long Island. The latter, in 1857, numbered "less than a hundred cottages" whose inmates "agreed only to differ." The civil war broke up this embodiment of Mill *On Liberty*, and in 1863 some had fled to South America; S. P. Andrews, the American Comte, was in New York; T. L. Nichols in England; while

Warren fulminated against nationalism and the Northerners from Boston. H. Edger was the only leader who remained, and he preached positivism to the desert air.

Warren's creed was formed in 1827, and expressed in many lectures and in two books—*Equitable Commerce* (1846, 1852) and *True Civilisation* (1863)—and consisted of two articles: (1) "The Sovereignty of the Individual to be exercised at his own Cost"—not at others' cost, for this was "encroachment," and should be restrained. Like H. Spencer (1857) he and Andrews (1846, 1851) deduced this maxim from a universal law of "disintegration," *i.e.* differentiation, whereby every function of the state would gradually peel off, each man would become a sect and nation to himself, and "may" would take the place of "shall." (2) The second article, "Cost the Limit of Price," was early-Owenite, and may be construed, "charge co-operative prices." Attendance, including the expense of preparatory education (Andrews, *The Science of Society* (1853), ii. 96), was often paid for by a time note (see LABOUR EXCHANGE). H. Edger treated this as a system for merely "moralising" industrial relations; but Warren, like Owen, hoped it would some day supersede money, interest on money, and unequal rewards for labour; though he confessed that its brief successes were due to "equitable competition," *i.e.* underselling, and "co-operation"; but the co-operative link was moral, not material; joint property was abhorred. As at New Lanark, stores, etc., were proprietary.

[Appleton, *Cyclopædia of American Biography*, *s.v.* Warren (incomplete).—T. L. Nichols, *Forty Years of American Life* (1864), ii. 40.—J. H. Noyes, *History of American Socialisms* (1870), ch. x.—M. Conway, *Fortnightly Review*, i. 421. (For remarks on these writers see Warren's and Andrews' works).—S. P. Andrews, *Basic Outline of Universology* (1872), pp. 31-34.] J. D. R.

WARREN. See FORESTS, MEDIÆVAL.

WARVILLE. See BRISSOT DE WARVILLE.

WASTE. A technical term of English law to signify certain acts beyond the competence of a tenant for life of real estate. Not merely wanton injury to the estate, but such acts as cutting down timber, ploughing up meadow land, or opening new mines, came under this description. If, however, the settlement declared that the tenant for life should be *unimpeachable for waste*, such acts were within his right. Even then, however, the court of chancery would hinder him from destroying ornamental timber, or pulling down or defacing the mansion. Acts thus inhibited by the chancellor in his equitable jurisdiction were comprised under the description of *equitable waste*. By the judicature act of 1873 the rules of equity prevail over the rules of common law in every case where they conflict (see Bewes, *On Waste*). F. C. M.

WASTE. See FORESTS, MEDIÆVAL.

WASTE LANDS ENCLOSING. See ENCLOSURES.

WASTE PRODUCTS. See RESIDUAL AND WASTE PRODUCTS.

WATERING STOCK, a slang expression, used to denote a well-known device of company promoters. A company is made to sell its undertaking to a new company for a sum considerably exceeding the capital of the old company, and the part of the capital of the new company not required for the shareholders in the old company is issued to the public (*e.g.* a company having a capital of £20,000 sells the undertaking for £100,000, each shareholder in the old company receiving shares for five times the nominal amount of his former holding, and shares for £50,000 are issued to the public. In this case the new company has a capital of £150,000, of which £50,000 are represented by cash paid by the new shareholders, whilst the other £100,000 represent an original payment of £20,000 only). The expression "watering" is used by way of analogy to the addition of water to wine of which wine-merchants and inn-keepers are sometimes accused. E. S.

WATTEVILLE, ADOLPHE DE GRABE, BARON DE (1799-1866), inspector general of public charity in France, and one of the ablest administrators in that department. He supported decentralisation in these matters, and spoke, 10th February 1851, before the French society of political economy against state charity; though he would have allowed the state the right of supervision and control.

The principal of his works and numerous reports are:—*Codes de l'administration charitable*, 8vo, 1st. ed. 1841, 2nd ed. 1847.—*Législation charitable*, 1st ed. 2 vols., 1843-46, 2nd ed. 1 vol. 8vo, 1847.—*Du sort des enfants trouvés et de la colonisation agricole*, 8vo, 1848.—*Essai statistique sur les établissements de bienfaisance*, 1st ed. 1847, 2nd ed. 1849. A. C. f.

WAY, RIGHT OF. A right of way, in the strict sense, is the right of the owner of a specified piece of land (called the dominant tenement) to pass over another specified piece of land (called the servient tenement), but in popular language the expression is frequently used in respect of the right of the public to use a road, footpaths, or bridle-paths passing through enclosed property. These roads or paths are in legal phraseology called "highways," and are as much public roads as any main roads, except in so far as they cannot be used for certain kinds of traffic. A right of way, in the strict sense, is acquired by express or implied grant, or uninterrupted user during a period of at least twenty years. On the other hand, a highway is created by dedication to the public on the part of the owner, and such dedication is presumed from an uninterrupted use by the public during such period of time as under the circumstances appears reasonable. If the act of dedication be unequivocal, the right may arise immediately, in other cases six years, or even shorter periods,

have been held to be sufficient. The duration of the user is not as important as the nature of the acts done by the owner of the soil, and of the adverse acts acquiesced in by him. A highway, whether a footpath or carriage road, must not be used for any purposes except one of the usual purposes for which a highway is used by the public, and any one using it for any other purpose is a trespasser.

[See Gale on *Easements*, 6th edition, 1888.—Notes to *Dovaston* v. *Payne*, 2 Smith's *Leading Cases.*—*Harrison* v. *Duke of Rutland*, *Law Reports* (1893) 1 Queen's Bench, 142.] E. S.

WAYLAND, FRANCIS (1796-1865), teacher, clergyman, and author. He graduated from Union College (New York), in 1813, studied theology for one year in Andover Seminary, was a tutor in Union College (1817-21), pastor of the first Baptist Church of Boston (1821), professor in Union College (1826-27), and for twenty-eight years president of Brown University, Providence, R.I. (1827-55). Under his administration the university prospered, and rapidly adapted itself to modern needs. In 1850 the university was reorganised on the elective system. After resigning the presidency in 1855, he was for a year and a half pastor of the first Baptist Church of Providence.

President Wayland lectured on psychology, political economy, ethics, and allied branches of knowledge. His text-books in the subjects on which he lectured were widely used in schools and colleges throughout the country. His *Elements of Moral Science* (New York, 1835) required a second edition within five months. His *Elements of Political Economy* (New York, 1837) was published also in an abridged edition (Boston, 1840). The author expresses his belief that the works on the subject in general use present the doctrines of the science truly, but not in such order as would be most likely to render them serviceable, either to the general student or to the practical merchant. The work is, therefore, distinctly a text-book—not a contribution to science. As such it was very successful and obtained wide use. E. T. D.

WAYNAGE. The plough and plough team of a villein. These were protected from distraint by the 20th article of *Magna Carta*, and according to the true text of Bracton (f. 6) a villein had an action against his lord for deprivation of his waynage. R. H.

WAYS AND MEANS. See SUPPLY (PARLIAMENTARY).

WAYS OF COMMUNICATION. See COMMUNICATION, MEANS OF.

WEALTH is one of the words by defining which a knowledge of things may be acquired (cp. Sidgwick, *Pol. Econ.*, bk. i. ch. ii. § 1). The term is with universal consent applied to objects which are material and exchangeable (cp. Mill, *Pol. Econ.*, preliminary remarks, and bk. i. ch. 3). The question is what other things resembling that class in certain points ought to be termed wealth. The debateable land may be contemplated by omitting now one, now another, of the four attributes comprehended in the definition above given: namely, (1) materiality, and —three attributes involved in exchangeability— (2) transferability, (3) limitation in quantity, (4) utility.

Omitting the first attribute, we have a class comprising personal services, such as those of the musician, teacher, physician, and so forth. Whether we call these unbodied utilities wealth or not, it is important to recognise that they form a part of the national income. The definition adopted by Mill in his *Political Economy* (bk. i. ch. 3) tends to obscure this, as pointed out by Mr. Cannan (*Production and Distribution*, p. 31). The class of immaterial wares might comprise persons, as well as personal services, in a *régime* of slavery. "Tutors, . . . physicians, poets, . . . —nay, sometimes philosophers, not to be sneezed at—were to be purchased in the Roman markets" (De Quincey, *Logic of Political Economy*, p. 81).

Omitting the second attribute, transferability, we have a class comprising useful natural objects which, though limited in quantity, cannot be appropriated, *e.g.* the moon.

Omitting both the first and second attributes, we have a class comprising personal faculties. We may with Mill (*Pol. Econ.*, bk. i. ch. 3) distinguish those industrial aptitudes which directly contribute to the production of material exchangeable wealth, and all other good qualities.

Omitting the third attribute, limitation in quantity, we have such goods as "the powers of wind and water which move our machinery and assist navigation . . . the pressure of atmosphere and the elasticity of steam which enables us to work the most stupendous engines" (Ricardo, *Pol. Econ.*, ch. ii.).

The general lesson to be derived from considering the class of goods which are not exchangeable is that they conduce, more than at first sight appears, not only to the higher elements of well-being, but even to the kind of welfare with which the economist is specially concerned (cp. Sidgwick, *Pol. Econ.*, bk. i. ch. iii. § 1).

The fourth attribute, utility, cannot be omitted; it is essential to wealth in any sense.

It may be required to determine the quantity—as well as to define the quality—of wealth. The problem appears to be of the same sort as the following: to determine the amount of food, or fuel, in a given mass of heterogeneous substances. Those problems would be solved by ascertaining in what quantities there was present the essential attribute, available nutriment, or heat. The corresponding essential attribute in the problem before us is utility.

The simplest course is to employ money-value as a measure of utility; correcting the imperfections of the measure by INDEX-NUMBERS. But it must be remembered that at best money measures only *marginal* utility (cp. Sidgwick, *Political Economy*, bk. i. ch. iii.).

Again, a valuation which includes goods of different "orders" ("producers' and consumers' goods") is liable to error in that the utility attained is not necessarily proportional to the amount of means employed. Wealth might seem to be diminished by an invention which reduced the amount of capital required for production. Money itself, considered as a means to effect exchanges, is an instance. If the coin in the world were doubled, the wealth of nations would not be increased in that proportion, but only so far as business might be stimulated by the change.

Again, debts and exclusive privileges, though reckoned by the creditor and monopolist as wealth, must not be included in the inventory of national wealth. True, a good system of credit is part of national wealth (in one of the secondary senses of the term). But the extent of that advantage is not to be measured by the amount of the instruments of credit employed.

Again, account should perhaps be taken of distribution; since inequality tends to diminish the sum total of utility (Sidgwick, *Pol. Econ.*, bk. iii. ch. vii. § 1).

Lastly, ought we to include with Petty the "value of the people"? Prof. Nicholson has estimated the "living capital" of the United Kingdom at £47,000,000,000. But "it seems doubtful whether an estimate of the capital value of the population as a whole can serve any useful purpose" (Marshall, *Principles of Economics*, p. 644, 3rd ed.). "In propriety of classification the people of a country are not to be counted as its wealth," thought Mill. Perhaps a man may count as wealth, of the unexchangeable variety, to others—though not to himself; for instance an immigrant into a country where the law of increasing returns is active. F. Y. E.

WEBER, FRIEDRICH BENEDICT (1774-1848), professor at Breslau:

Was author of an *Einleitung in das Studium der Cameralwissenschaften*, 1803, and of a *Systematisches Handbuch der Staatswirthschaft*, 1804. Though much more under the influence of former German cameralists, such as JUSTI and SONNENFELS (*q.v.*), than of Adam SMITH, he expressed great admiration for the latter. For instance, his ideas on the efficiency of usury and sumptuary laws followed the old traditional pattern. He apprehended an over-population of producers, but not of idle consumers, as these determine a demand for labour. He considers that CAMERALISTIC SCIENCE should be taught in special academies. In universities, he only admits it as a secondary branch of the faculty of law.

[Roscher, *Gesch. der Nat. Oek.*, pp. 472 and 602.] E. Ca.

WEBSTER, DANIEL (1782-1852), statesman, "expounder of the American Constitution," graduated at Dartmouth College, 1801, studied law in Salisbury, N.H., taught school for a few months in Maine, and then finished his preliminary law studies in the office of Christopher Gore of the Boston bar. He was admitted in 1805, and practised his profession successively in Boscawen and Portsmouth, N.H., and in Boston, Mass. He criticised the Embargo in 1808, and was opposed to the war of 1812, drawing up the Rockingham memorial, a protest against the war. He was elected to congress in 1813, from New Hampshire, favoured the strengthening of the navy, but opposed a bill for encouraging enlistments and similar measures.

His first important case was that of Dartmouth College, 1818. John Fiske says that the decision in this case "went further, perhaps, than any other in our history, toward limiting state sovereignty, and extending the jurisdiction of the supreme court." In 1822 Webster was elected to congress from Boston. Until 1828 Webster was opposed to the protective tariff policy, and made one of his best speeches in opposition to the tariff of 1824. When, however, manufactures had become established in New England and an attempt was made to overthrow the protective system, he became and remained a protectionist, supporting the "American system" of Henry Clay. He supported the "tariff of abominations" (1828) in the senate to which he had been elected in the preceding year. In the matter of internal improvements, Webster had already favoured a liberal construction of the powers of the national government, and his change of attitude on the tariff issue brought him into sympathy in all important points with the "loose constructionists."

The summit of his political fame and public service was reached in the great debate on nullification in January 1830. Webster's reply to Hayne on this occasion is the greatest speech ever delivered in the American congress. Its chief sentiment, as of Webster's speeches throughout, is that of loyalty to the union of the states and to the constitution, in the interpretation made necessary by the national growth of half a century. His support of Jackson's administration in the conflict with the nullification doctrine of Calhoun and South Carolina was no less vigorous than his opposition to the administration, in its policy with regard to the bank and the removal of the deposits. His speech on the president's protest of 1834 is second only to the reply to Hayne. He supported Harrison for the presidency in 1840, and became secretary of state, in which position he negotiated the ASHBURTON

treaty with England, settling the north-east boundary, and removing other complications which threatened a disturbance of peaceful relations. At the same time the two countries entered into the "cruising convention" for the more complete suppression of the slave trade.

Webster re-entered the senate in 1845, and in 1850 delivered the famous "seventh of March" speech in support of Clay's compromise for the complete settlement of the slavery question. This measure, with its provision for the return of fugitive slaves, was extremely obnoxious to the north, and Webster's assistance in passing it was severely condemned. Whittier's bitter poem "Ichabod" expressed the sentiments not only of abolitionists, but of the majority of Webster's constituents. He became secretary of state under Fillmore later in the same year.

Webster's occasional addresses have very high rank. Among the best are the Plymouth address in commemoration of the landing of the Pilgrims, 1820; the Bunker Hill Monument address, 1825; and the Eulogy on John Adams and Thomas Jefferson, 1826.

[See the article on Webster, by John Fiske in Appleton's *Encyclopædia of American Biography*.—George Ticknor Curtis, *Life of Webster*, 2 vols., New York, 1870.—Webster, *Works*, 6 vols., Boston, 1851.—Webster, *Private Correspondence*, 2 vols., Boston, 1856.—*Great Speeches of Webster*, Boston, 1879.—Henry Cabot Lodge, *Life of Webster*, in "American Statesmen Series," Boston, 1883.] E. T. D.

WEBSTER, PELATIAH (1725-1795), born at Lebanon, Connecticut, graduated at Yale College, 1746; was for a short time a preacher; about 1755 became a merchant in Philadelphia, and acquired a large estate; being an active Whig, he was, in 1778, thrown into prison by the British during their occupation of the city.

Webster published an essay urging the redemption of continental paper money in 1776, and subsequently issued: (1) *An Essay on Free Trade and Finance, Phila.*, 8vo, Nos. 1-7, 1779 *et seq.* (2) *A Dissertation on the Political Union and Constitution of the Thirteen United States of North America*, 1783, 8vo. See Madison Papers, 706. (3) *An Essay on Credit, in which the Doctrine of Banks is considered*, 1786, 8vo. (4) *Reasons for Repealing the Act of the Legislature of Pennsylvania which took away the Charter of the Bank of North America*, 1786, 8vo. (5) *Political Essays on the Nature and Operation of Money, Public Finances, and other Subjects*, published during the American War, and continued up to the present year, 1791, 8vo, pp. 504: London, 1791, 8vo. F. A. W.

WEEK-WORK. The *wic-weorce* of the *Rectitudines singularum Personarum* (Kemble, *Ancient Laws*, p. 185). In ancient manorial extents it is usual to find a statement that the villeins were bound to work for three or four days in each week from Michaelmas to the 1st of August. The nature of the work varied according to the season, but it consisted chiefly of ploughing, harrowing, and other farm labour.

For the villein's special duties at harvest and at the spring and autumnal ploughings, see PRECARIUM, and SERVICES (PREDIAL AND MILITARY). R. H.

WEIGHTED OBSERVATIONS. In combining the results of a series of observations, it frequently happens that some of the results deserve a greater importance to be attached to them, that they should exert greater influence on the result, than do others. This is achieved by a process of *weighting* the observations. A particular example of the process occurs in forming averages of prices. The prices of the commodities which occupy the most important places in national consumption are allowed greater importance, since changes in these prices affect a wider range of persons and affect them more deeply, than changes in price of commodities on which but little is expended. If w_1 be the amount expended on a commodity whose price undergoes a variation in the ratio of p_1 to unity and similarly for w_2, p_2, etc., the average price-variation will be given by

$$\frac{w_1p_1+w_2p_2+\ .\ .\ .\ .\ .\ +w_np_n}{w_1+w_2+\ .\ .\ .\ +w_n}$$

which is called the weighted arithmetic mean of the prices p, for the weights w. A geometric mean might also be formed for the same price-variations and weights. In the practical work of calculating price-averages, it has been proved by experience that if the commodities whose prices are used are thoroughly representative, and the level of price taken for reference is not affected by extraordinary special variations, the course of price movements, as reflected in weighted and unweighted price-averages, exhibits but few considerable or important differences (see INDEX NUMBERS; TABULAR STANDARD).

[On the theory of the effect of weighting price-averages see the reports to the British Association, 1886-7-8, by Professor F. Y. Edgeworth.—For example Royal Commission, Depression of Trade, Appendix B., R. H. Inglis Palgrave, Memorandum on Standard of Value.] A. W. F.

WEIGHTING. See WEIGHTED OBSERVATIONS.

WEIGHTS AND MEASURES. See MEASURES AND WEIGHTS.

WEITLING, WILHELM (1808-1871), has been called the father of German communism. Born at Magdeburg, he was a tailor by trade, and imperfectly educated. After travelling through Germany for some time, he went to Paris, where he resided four years, and became imbued with the doctrines of the French socialists, especially FOURIER and CABET. In 1841 he removed to Switzerland, where he formed some communistic associations, and issued at Vevay a paper entitled *Hilferuf der deutschen Jugend*. In 1843 he was imprisoned by the Swiss government, and afterwards ex-

pelled from the country. He was also obliged to leave Berlin and Hamburg. In 1849 he came to England, and, after a short stay, went to America, and founded a colony in Wisconsin entitled Communia, which soon failed. He died at New York, having continued his political agitation to the end.

His first publication was *Die Welt wie sie est und sein solle* (1838). His principal writings are *—Garantien und Harmonien der Freiheit* (1842), and *Das Evangelium eines armen Sünders* (1845, of this there is now a cheap reprint). MARX contrasts "the jejune and feeble mediocrity of the political literature of the German bourgeoisie with the incomparable and brilliant début of the German working man" in the *Garantien*. In the *Evangelium*, Weitling represents communism as a deduction from the doctrines of the New Testament.

In his view, as long as there was an abundance of unoccupied land, the institution of property was not inequitable, since it did not deprive any one of the prospect of becoming a land-owner; but, afterwards, it became a gross injustice, and is the cause of the misery of the poor, it being impossible for every free man to appropriate a portion of the soil. It was therefore to be abolished, and a system substituted for it which seems to be one of the most chimerical of all the socialist Utopias (see SOCIALISM; UTOPIAS). Families were to be associated in groups embracing the whole human race, each group being governed by an elective head, who should be charged with the distribution among them in equal shares of all necessary and useful things in return for a certain number of hours of labour; those who gave a larger amount of time receiving objects of special enjoyment, but under the condition of their consumption within a short fixed interval, so as to prevent the reappearance of economic inequalities through the agency of accumulation and hereditary transmission. Weitling advocates the introduction of this new order of things, if necessary, by violent revolution, and sets out an elaborate scheme of legislation for the reformed community.

[Lippert in *Handw. der Staatsw.*—Cossa, *Introd. allo studio dell' E. P.*, p. 541.—W. H. Dawson, *German Socialism*, p. 42.] J. K. I.

WEST, HON. SIR EDWARD (1783-1828), chief justice of Bombay, educated at Oxford, M.A. 1807, fellow of University College until 1823, called to the bar in 1814, published a *Treatise on Extents*, appointed recorder of Bombay, knighted 5th July 1822, and on the establishment of the supreme court was made chief justice. He died at Poonah.

It was in the following pamphlet that West formulated his law of DIMINISHING RETURNS, *An essay on the application of Capital to Land, with Observations showing the Impolicy of any great Restriction of the Importation of Corn, and that the bounty of 1688 did not lower the price of it. By a Fellow of University College, Oxford*, London, 1815, 8vo. He said: "The chief object of this essay is the publication of a principle in political economy which occured to me some years ago. . . simply this, that in the progress of the improvement of cultivation, the raising of rude produce becomes progressively more expensive, or, in other words, the ratio of the net produce of land to its gross produce is continually diminishing. . . . Each equal additional quantity of work bestowed on agriculture yields an actually diminished return; and, of course, if each equal additional quantity of work yields an actually diminished return, the whole of the work bestowed on agriculture in the progress of improvement yields an actually diminished proportionate return" (pp. 1, 2, 6). Mr. Cannan remarks: "It is impossible to read West's pamphlet without seeing that the form in which the 'law of diminishing returns' was subsequently taught, and the phraseology in which it was expressed, are far more due to him than is imagined by those who only know him as the subject of a civil reference in Ricardo's preface" (*History of the Theories of Production and Distribution in English Political Economy*, 1776 to 1848, London, 1894, p. 160; for the question of the priority of the date of publication of the pamphlets of West, Malthus, and Ricardo, see *ib.* p. 161, *n.*)

West's other pamphlet was: *Price of Corn and wages of Labour, with observations upon Dr. Smith's, Mr. Ricardo's, and Mr. Malthus's Doctrines upon those subjects; and an attempt at an exposition of the causes of the fluctuations of the price of corn during the last 30 Years*, London, 1826, 8vo. In the preface he complains, without reason, that Ricardo had not given to his former *Essay* the credit of the discovery that "the diminution of the net reproduction, or the profits of stock, which is observed to take place in the progress of wealth and improvement, must necessarily be caused by a diminution of the productive powers of labour in agriculture." On pp. 83-85 he refutes the wage-fund theory.

[*Gent. Mag.* June 1829, pp. 565, 566.—G. G. Cunningham's *Lives of Eminent Englishmen*, 1838, vii. 380.—M'Culloch's *Lit. of P. E.*, pp. 33, 78. —*Suppl. au Nouv. Dict. d'Écon. Pol.*, 1897, p. 270.—*Blackwood's Mag.*, xxi. 78, 311.—Cossa's Introd. tr. 1893, pp. 314, 319.—*Economic Journal*, March 1892.] H. R. T.

WEYLAND, JOHN (early 19th century), one of the contemporary critics of Malthus, wrote *A Short Inquiry into the Policy, Humanity, etc., of the Poor Laws*, 8vo, 1807.—*The Principles of Population and Production as they are affected by the Progress of Society, etc.*, 8vo, 1816.

[Malthus, *Essay*, Appendix, 1817; Bonar, *Malthus and his Work*.]

WHATELY, RICHARD (1787-1863), for thirty-two years archbishop of Dublin, entered Oriel College, Oxford, in 1805, where he owed much to the influence of his tutor Copleston, afterwards bishop of Llandaff. He had been the tutor of N. W. SENIOR (*q.v.*), whom he succeeded in 1829 in the Drummond chair of political economy. In accepting the post Whately considered that "the occupying of the office by one of my profession and station may rescue" political economy at Oxford "permanently from disrepute" . . . "it seems to me that before long political economists, of some sort or other, must govern the world." His introductory course of lectures is concerned with establishing the real

scope and purpose of the science, which are "to enquire into the nature, production, and distribution of wealth, not its connection with virtue and happiness." For the term "political economy" he would have substituted the term "catallactics," or the science of exchanges. His intention was to make a sort of continuation of Paley's *Natural Theology*. "Extending to the body-politic some such views as his respecting the natural." In 1831 we find him suggesting to Senior the starting of a political economy society. The term of his professorship was, however, abruptly cut short by his promotion, in the same year, to the see of Dublin. In his new sphere he did not forget his old tastes, and one of his first acts was the founding of a professorship of political economy at the university of Dublin. In 1833 he published in the *Saturday Magazine* some attempts to give plain instruction in political economy to children and poor people. In a letter to Senior, Whately suggested the publication of a statistical dictionary, on the lines, though on a smaller scale, of the present work. He was also one of the founders of the Dublin statistical society.

It was, however, in the active field of social questions that Whately's activity was most marked. He was a member of the commission of inquiry into the condition of the poor in Ireland, which reported against the introduction of a poor law modelled on the English system, and later he opposed the out relief clause, in the Poor Law Extension Act of 1847 (see POOR LAW). No one spoke with more authority on questions of church reform; and he was one of the earliest and ablest opponents of the system of transportation. It was in the application of the most lucid common sense to the facts of life that Whately's real greatness lay. It was observed of him by J. S. Mill that his reading was singularly scanty, in proportion to his intellectual capacity, though one may note that among his six favourite authors was included Adam SMITH (*q.v.*). Whately himself, with his usual acumen, described his own bent of mind as being towards an elementary knowledge of a great many subjects. "I resemble one whose trade is to make instruments for others to work with." But if the saying "wisdom is justified of her children" applies to political economy, there are few sons of whom she has more reason to be proud than of Richard Whately.

Among Whately's very numerous publications the principal ones, connected with the object of the present work, are *Introductory Lectures on Political Economy*, London, 1832, 8vo. (The 4th ed., revised and enlarged, contains "Remarks on Tithes and on Poor Laws and on Penal Colonies," 1855.)—*Easy Lessons on Money Matters*, 1833, 16mo (passed through at least fifteen editions).—*Thoughts on Secondary Punishments in a letter to Earl Grey*, London, 1832, 8vo.—*Remarks on Transportation in a second letter to Earl Grey*, London, 1834, 8vo.—*Speeches on Transportation*, 1840, 8vo, and on *Irish Poor Laws*, 1847, 8vo.—[*Life of Archbishop Whately* by Miss Whately, 2 vols., London, 1866, 8vo.—*Miscellaneous Remains from Commonplace Book*, 1864, 8vo; and *Addenda* to the above, 1865, 8vo.] H. E. E.

WHEATLEY, JOHN (fl. 1803-22), wrote three books:

Remarks on Currency and Commerce, 1803; *An Essay on the Theory of Money and Principles of Commerce*, vol. i. 1807; vol. ii. 1822; *A Letter to Lord Grenville on the Distress of the Country*, 1816. The second volume of the *Essay*, except chapters 6 and 7, was inspired by the later editions of MALTHUS'S *Essay*, but recommended large farms, primogeniture, and a squirearchy after the English pattern as a panacea for Ireland, India, France, etc. All his other works dealt with money. He ascribed all the money troubles 1797-1819 to bank notes, and opposed H. THORNTON'S theory that foreign payments were to blame, as W. PITT by limiting over-issues "might have caused the influx of money *to any extent at the same time that*" he sent the money abroad—*Essay*, i. 194: Thornton saw the fallacy of the italicised words, Lord Overstone (see Jones LOYD), *Tracts*, ii. 221. For the rest he united an implicit belief in Sir G. Schuckburgh Evelyn's misleading INDEX NUMBERS as to the depreciation of money (*Phil. Trans.*, 1798, pp. 174-176) with Thornton's revival of D. HUME'S view that credit paper, though convertible, affects prices—compare Lord OVERSTONE, *Tracts*, i. 442. Indeed his paper key unlocked every monetary secret of the past century. Since 1689 depreciation was caused by bank notes, and bank notes by taxation. His notion that revenue and paper money increase *pari passu* was hinted at by Sir J. STEUART, *Pol. Ec.*, ed. 1770, iii. 251, 340, and formed a link between him and the apostles of inconvertible paper—Pearse, SINCLAIR, and ATTWOOD, and the sworn foes of paper, PAINE and COBBETT. His notion that a tax on one commodity tended to raise the price of every commodity—*Remarks*, p. 202—was shared by Locke, Massie, M. DECKER, Fauquier, Dr. Price, G. Crawfurd, and many others; but to the question "how then have taxes on commodities been paid?" LOCKE'S followers answered "by the landlord," Steuart "by increased industry," FAUQUIER "by the man of fortune," Wheatley "by depreciation," and this he thought an ugly fraud on creditors of the national debt, though better than the ruin boded by Hume, Blackstone, and A. SMITH. As for the future—mines being then quiescent—stable prices might be maintained if the Bank of England had a monopoly of note-issues, and foreign governments acted likewise. If foreign governments increased their currency we should have to follow suit. Dread of falling prices, inspired perhaps by Malthus, prompted his conviction that the Bank ought not to have resumed cash payments until prices rose to the high-water mark of 1812-13—here, again, his policy and language, *Essay*, ii. 134, recalls T. Attwood,—and though he wrote that "a high price of corn is the best test of prosperity," *Essay*, ii. 110, unlike Malthus he saw in the importation of foreign corn a sign only of

manufacturing prosperity, and opposed the corn laws. He was a consistent free trader—*Essay*, ii. ch. vii. Other political questions did not interest him. This man of one idea was after all one of the earliest exponents of the CURRENCY DOCTRINE.

J. D. R.

WHEELER, JOHN (17th century) secretary to the society of Merchant Adventurers: was the author of a *Treatise of Commerce*, 1601, written to show the superiority of the Merchant Adventurers over unorganised traders (see ADVENTURERS, MERCHANTS). He argued that competition among merchants was minimised, that the large fleets employed by such a company secured commerce, increased exports, cheapened imports, raised the customs revenue, and benefited the nation in time of war. Much of the interest of the book consists in a detailed account of English alliances with the Low Countries, with special reference to our trade with Antwerp, and in a survey of the trade between England and the Hanse towns, and of Elizabeth's negotiations with the latter, with a refutation of their charge against the Merchants Adventurers of being monopolists.

[Cunningham, *Eng. Indus. and Commerce, Mod. Times*, 24, 88, 119, 120.—Cossa, *Introduction*, trans. Dyer, 1893, p. 200.] E. G. P.

WHEWELL, WILLIAM (1794-1866), was born at Lancaster, the son of a master-carpenter. Educated at Lancaster Grammar School and Heversham School, Westmoreland, he went up, in 1812, to Trinity College, Cambridge, where he soon earned marked distinction, not only in mathematics, but in other branches of learning also. In 1816 he graduated as second wrangler, and the following year was elected a fellow of his college. From that time his rise was rapid and continuous. He became fellow of the Royal Society in 1820, and in 1828 professor of mineralogy, a post he resigned a few years afterwards. In 1838 he was chosen to fill the chair of casuistry or moral philosophy. In 1841 he was president of the British Association. In the autumn of the same year he was appointed by the crown master of Trinity College.

All Whewell's mature life was associated with Cambridge. He quickly won for himself a position of commanding influence in college and university affairs. His vast ability and enormous industry were always at the service of a masterful disposition and a strong will. He seldom failed to carry his point; and, when he became head of the greatest and most influential of the foundations of Cambridge, it is hardly too much to say that he dominated the university, in spite of the opposition sometimes aroused by a brusque manner and a habit of magnifying his authority. His position was that of a conservative reformer. He believed that the university should reform itself from within, but strenuously objected to legislative interference from without. It was mainly owing to his influence that the natural and moral sciences obtained due recognition in the Cambridge curriculum. Political economy was one of the many subjects dealt with by him, and its study received a strong impetus when in 1861, under his guidance, a B.A. degree in honours was offered for proficiency in it and a group of kindred sciences.[1] International law

[1] Whewell's mathematical exposition of certain doctrines of Pol. Econ. in the *Cambridge Philos. Trans.*, vol. iii. pp. 191-230 is referred to in the art. on POLITICAL ECONOMY: METHOD, vol. iii. p. 136.

The principal contribution, however, which he made to economic literature was the volume of *Six Lectures on Political Economy, delivered at Cambridge in Michaelmas Session* 1861 (printed at the Univ. Press, 1862). These lectures, which were never published, were prepared for the use of the present Prince of Wales, to whom they were delivered while he was resident at Cambridge. Dr. Whewell, who had been requested by Prince Albert to prepare the course "as the matter of the lectures required repeated thought," desired, for his "own satisfaction at least, to put it in a more permanent form than a spoken lecture."

Besides the interest which the volume possesses as being prepared for the use of the heir to the throne, it possesses a special attraction to economists as showing the manner in which the main subject presented itself to a thinker of considerable power, as Whewell undoubtedly was, and who, as the editor of the works of R. JONES (*q.v.*), may be regarded as being abreast of the economic thought of his time.

The scheme of the lectures was necessarily limited by the conditions under which they were composed. They are six in number, entirely elementary in character, and, in the words of the preface, do not "aim at any originality beyond that which selects the best passages of writers of acknowledged authority, and weighs them against one another." The works principally referred to are:—Smith's *Wealth of Nations* (M'Culloch's ed.).—The *Principles* of M'Culloch, Ricardo, and J. S. Mill.—Malthus, *Definitions* (ed. 1831).—Chalmers, *Pol. Econ. in connection with the Moral State and Prospects of Society* (1832).—Harriet Martineau, *Illustrations of Pol. Econ.* (1832, etc.).—Senior, Appendix to Whately's *Elements of Logic*, 1848.—Travers Twiss, *View of the Progress of Pol. Econ.*, 1847.—Jones, *On Wealth and Taxation*, pt. i., "Rent," 1831.—De Lavergne, *Essai sur l'Économie Rurale de l'Angleterre*, 1858.—F. Bastiat, *Essays on Pol. Econ.* (English translation, 1853). This list precedes the lectures. Besides the writers named, De Quincey is referred to, through the quotations in J. S. Mill, on difficulty of attainment. DAVENANT is mentioned, as quoted in T. TOOKE, and Dr. James ANDERSON and Sir Edward WEST (as also Malthus) as quoted by M'Culloch in connection with "the theory of rent."

This list itself is of interest as showing the English writers regarded as authorities at that time, and the selection of foreign writers is equally curious. The subject matter of the lectures is entirely elementary. The first three are wealth, productive and unproductive labour; price, the different effects of fixed and circulatory capital on price; that profits are not the result of labour; that profits are justifiable; on value in use and value in exchange; on demand and supply. The last three are on rent in different aspects. The theory of rent as set forth by R. Jones is explained, and "that tenants may be divided . . . into four classes—métayers, serfs, ryots, and cottiers—in addition to farmers." That cultivators of the land were thus divided was probably but little known in England at the time. Commenting on it Dr. Whewell observes, "that we have, in this new view of the subject, an example of the *inductive* method applied to political economy, in distinction from the *deductive* method, which is that of Ricardo and his school," and he goes on to further illustrations. The illustration of the subject from this point of view is slight, but the treatment is worthy of the writer of the *History of the Inductive Sciences*.

Read in the light of recent events these lectures have an interest of their own. Particularly the reference by Whewell to "the great problems which I have had to deal with in lectures V. and VI., namely, the nature of the recent agricultural progress of England." In lecture V. itself Whewell speaks with even more force on the same subject, and considers that the proportion of the non-agricultural to the agricultural population

also occupied a large share of his attention; and by his will he made liberal provision for the foundation of a professorship of that subject at Cambridge, and also for no less than eight university scholarships in it. Fighting man as he was to the last, he had the deepest reverence for the college and university of which he was the most conspicuous ornament. His services and his means were given to both ungrudgingly; and in all his conflicts he strove for what he deemed to be right without any thought of personal advancement or private interest. He was a man of strong family affections, and in his domestic circle loving and tender to a degree that seemed incredible to those whose relations with him were merely official.

Dr. Whewell was a most voluminous author. Reports, articles, sermons, pamphlets, books on a vast variety of subjects issued in rich abundance from his untiring pen. His chief works were his *History of the Inductive Sciences* (1837); his *Philosophy of the Inductive Sciences* (1840); and his *Elements of Morality including Polity* (1845). In philosophy he belonged to the intuitive and *a priori* school, and strongly opposed the utilitarian view of morality. He founded no new school of thought, but his writings and lectures roused interest in speculative problems and formed striking contributions to many of the controversies connected with them.

[Mrs. Stair Douglas, *Life of William Whewell*, (1881); Todhunter, *William Whewell* (1876).]

T. J. L.

WHITE BONNET. One who in an auction bids for his own goods, or is employed by the owner to bid for them (Jamieson, *Scott. Dict.*).

[For analogous term, see VERT.]

WHITTINGTON, SIR RICHARD (c. 1350-1423), mercer, the son of a Gloucestershire gentleman, was apprenticed to Sir John Fitzwarren of the Mercers' Company, and afterwards married his daughter. Whittington's name first occurs in an assessment of 1379, where he is put down for 5 marks, the lord mayor of that day contributing £10. Ten years later Whittington was able to contribute his share of £10 towards civic defence, so that during this time he had probably made his fortune, as this was the contribution of only the richest citizens.

In 1393 Whittington was elected alderman and sheriff, and in 1396 shared the mayoralty for several months with Sir Adam Bamme, whom next year he succeeded in the office, as Sir Richard Whittington. In 1406 he was again elected mayor, and ten years later he represented the city in parliament. Whittington maintained his popularity to the last, so much so that in 1419 he was elected mayor for the third, or if we count his joint occupation of that office for a few months in 1396, for the fourth time. It was during this his last tenure of the office that he so magnificently entertained Henry the Fifth and his wife at a banquet where, on a fire of cedar wood, he burnt the bonds he and others held of the king to the value of £60,000, equivalent to upwards of a million of our money.

Whittington's name has deservedly come down to us as an example of the just and prosperous merchant. His continued popularity among those of his own generation is the best proof of his equitable dealings. His vast fortune was without doubt amassed by a system of bold but honest speculation in the most varied kind of merchandise. We know that he was what his modern biographers style "the court mercer" (Besant and Rice, *Sir Richard Whittington*, London, 1881), and supplied precious silks, cloths, and jewels to the king's daughters, but, like the great merchants who preceded him, he was probably more than this—he was doubtless purveyor to the crown of food stuffs, apparel, and household appliances (see PURVEYANCE); doubtless also a large cloth merchant, and contractor for "sea-coal." Most probably, as has been suggested, the story of the "cat" originated from his early and successful ventures in this last-mentioned article of commerce, then in universal demand, as the "coal" vessels of that period were styled "cats." Whittington was also one of the largest money-lenders of his time; and as money was usually advanced only on reliable security, these were not necessarily risky investments.

Among Whittington's bequests to the City were a library at Grey-Friars, the enlarging of the Guild Hall, an Alms House—God's House—for thirteen poor men, and a college to be called after him.

The *Liber Albus* was compiled at Whittington's instigation and completed during his last mayoralty, in 1419. The initiation of such a work proves Whittington to have been not only a man of business and a prosperous merchant, but one who had the honour of his city and the right understanding of its unique liberties very near to his heart. Whittington left instructions in his will for the rebuilding of the gaol of Newgate. A. L.

WILL, GEORG ANDREAS (1727-1798), lectured in the university of Altdorf on history, poetry, political science, and logic.

He wrote a *Versuch über die Physiocratie, deren Geschichte, Literatur, Inhalt und Werth*, Nürnberg, 1782. The doctrines of the physiocrats

"proves, in the most conclusive manner, that the course of events by which England has come into its present condition, has been an increase in the productive powers of its agriculture, such as has placed it in advance of other countries." England remains in advance of other countries in respect of the yield from the soil, but in the present position of agriculture no one could speak of its influence on the national welfare in the same terms. Reading the lectures causes a feeling of regret that Whewell did not give a closer attention to their subject. The remarks on Ricardo, M'Culloch, and Travers Twiss show that Whewell could bring considerable critical power, as well as very extensive reading, to bear on the questions dealt with.

had, in Germany, been both hailed with enthusiasm and severely criticised; Will takes a rather sceptical attitude. He considers that the doctrines of the IMPÔT UNIQUE, the *produit net*, unrestricted free trade, and of the sterility of manufactures and money, are the really new contributions of the Physiocrats to political economy, but that whenever the natural consequences of these premises occur, the PHYSIOCRATS exclaim that they have been misunderstood.

[Roscher, *Gesch. der Nat. Oek.*, p. 496.] E. Ca.

WILL, BEQUEST BY. The right of the owner of property to determine by his will who is to take such property after his death is by many persons assumed to be part of the law of nature, and any interference with this right a dangerous attack on the institution of property itself. Yet this right, as it exists now in England and elsewhere, has been developed by a very slow process, and by the help of impulses which in our days would not be thought worthy of much consideration. There seems to be a universal rule in all countries that what is now called succession "ab intestato" is more ancient than testamentary succession. In the first stages of the development of the law of property the right of some members of the family of the deceased to take his property cannot be displaced by any testamentary succession. The necessity of appointing a successor arose in cases where there was nobody who might inherit under the ordinary rules. In such a case there would be no one to perform the religious rites incumbent on the successors of a deceased person, and a remedy had to be found to avoid a consequence which in these early stages of history was looked upon as a terrible disaster. The first step to meet this difficulty appears everywhere to have been the custom of creating an artificial family by the adoption of a stranger. Such an alteration in the composition of a family was generally impossible without the concurrence of the other members of the community to which the parties belonged; this was undoubtedly the case in ancient Rome, and accordingly, when, in course of time, by the side of adoption pure and simple, we find the "institution of an heir"—that is to say "an adoption, the effect of which was to make the *heres institutus* the son of the testator—not indeed immediately, but as from the testator's death" (Sohm's *Institutes*, translated by Ledlie, p. 449), the concurrence of the *comitia calata* was required in the same way as in the case of an ordinary adoption. It was probably due to the desire of the plebeians to acquire the benefits of testamentary succession without the concurrence of the aristocratic assembly, in which they were unrepresented (see Sir H. S. Maine, *Ancient Law* (4th ed. p. 201), that a new mode of appointing heirs came subsequently into use which received recognition by the law of the XII Tables (450 B.C.). The form of the testament thus introduced was that of a sale of the inheritance to a purchaser: *familiae emptor*, who on the vendor's death took the place of his heir, and administered the property according to the vendor's directions. The sale was carried out in the form known as *mancipatio*; five Roman citizens were present as witnesses as well as the *libripens*. The *familiae emptor* having expressed his readiness to purchase the inheritance, and having had the purchase money weighed and handed to the testator, the testator, holding the tablet on which the will was inscribed, said the words: "Haec ita ut in his tabulis cerisque scripta sunt, ita do, ita lego, ita testor, ita que vos Quirites testimonium mihi perhibetote."

At a subsequent stage the *familiae emptor* became a mere dummy, the heirs being named in the will itself; and afterwards, through the influence of Prætorian law, a private will was accepted as authentic if signed and sealed by seven attesting witnesses. In this latter form private wills must still be executed in some parts of Germany at the present time (1898).

As mentioned before, a will had two functions: the disposal of the testator's property, and the institution of an heir who became the testator's universal successor and performed his funeral rites, but did not necessarily take much of his estate beneficially, being liable to satisfy the testator's debts as well as his legacies and trust dispositions. The latter were, however, by successive enactments, subjected to certain restrictions, the latest being the *Lex Falcidia* (40 B.C.) and the *S. C. Pegasianum* (75 A.D.) which provided that an heir must receive at least one-quarter of his share of the inheritance free from legacies and trust dispositions. Originally, as mentioned above, a testamentary heir was instituted in the event of their being no natural heir; if there was a natural heir the latter became heir by right of descent; but as time went on it became sometimes desirable to exclude the natural heirs and to appoint strangers, or to give larger shares to some of the natural heirs or some of them; but a will which neither instituted the natural heirs as heirs nor expressly disinherited them was treated as an invalid testamentary disposition.

This rule did not affect the beneficial rights of the natural heirs, as it was quite sufficient for its purpose to appoint them heirs for a much smaller share than the share to which they were naturally entitled; but another rule soon grew up which gave natural heirs, who did not receive their proper share, the right to have the will declared invalid on the ground that the testator, by omitting to benefit his relatives, had proved to be of unsound mind (*querela inofficiosi testamenti*). This right was, however, excluded if the testator gave each natural heir one-quarter of the share to which he would have been entitled if the testator had died intestate. This quarter was called *legitim portia*. There was therefore the formal right to be instituted heir, which could be displaced by express disinheritance, and the material right to receive at least the *portio legitima* which could not be displaced. The law of Justinian, *Novella* 18 and *Novella* 115 (542 A.D.), which is still the existing law in some parts of Europe, modified the two rules in the following manner:—

(1) A testator must appoint his issue, or if he leaves no issue his ancestors, as heirs, or expressly disinherit them, but he cannot disinherit any of them except on certain specified grounds. If any of them is not instituted heir or disinherited on insufficient grounds, the person so passed over is entitled to claim the full share to which he would have been entitled if the testator had died intestate, but subject to the diminution of the estate resulting herefrom, the will is treated as valid. If any person entitled as aforesaid is appointed heir, but not to the extent of his legitim portion, he is entitled to claim the difference between the share bequeathed to

him and the legitim portion. (*Actio ad supplendam legitimam.*) The amount of the legitim portion is increased to ⅓ and in some cases to ½ of the intestate portion.

(2) As regards collaterals the ante-Justinian law remains unchanged.

The development of the rules relating to testamentary dispositions in Roman law, may therefore be summed up as follows:—

1. Originally only the members of the family inherit.

2. Strangers are allowed to inherit if no member of the family can inherit; this result is obtained (*a*) by adoption of the strangers; (*b*) by a will made in the assembly of *gentes* in the form of a modified adoption.

3. Under the influence of those classes of the community who took no part in the assembly of *gentes*, the same result was attained by the fiction of a sale of the inheritance. This fiction was sanctioned as the regular form for making a will by the law of the XII. Tables. Its traces remain in the private will, attested and sealed by seven witnesses, which in later Roman law became common and is still used in some parts of Europe.

4. The custom of burdening the inheritance with legacies and trust dispositions leads to legislation which secure to the heirs one-fourth of the estate clear of legacies and trusts, *Quarta Falcidia*.

5. As the custom springs up to institute strangers as heirs, even when natural heirs are in existence, it becomes necessary to protect the natural heirs (*a*) by preserving their formal right to be instituted as heirs; (*b*) by preserving their material right to receive at least one-fourth of the share to which they would have been entitled in case of intestacy. Both rights are safeguarded in a modified way by Justinian's *Novella*, 115, which still governs the law on the subject in some parts of Europe.

A similar development may be traced in Germanic countries on the Continent, but there the process is modified by the interference of the feudal system and also by the influence of the church, and finally by the reception of Roman law. In England the same modifying influences existed, subject, however, to the circumstance that Roman law was not "received" here in the same sense as it was "received" on the Continent. In any event the final result is entirely different from the result of the continental development. Our space is not sufficient for an account of the latter, but the following short sketch of the English history of wills enumerates a number of facts which, as to part thereof, also existed on the Continent.

In Germanic countries, as in Rome, a person's property was on his death originally given to his natural heirs, and it was not in his power to deprive them of this right by any testamentary disposition. The process by which this right was gradually interfered with was different in many ways from the development of testamentary capacity in Roman law, but the motive power was the same in both cases—the solicitude for the donor's fate after death. As the citizen of Rome wanted an heir whose duty it was to perform the funeral rites, so the Anglo-Saxon landowner altered the regular course of succession in order to devote part of his property to pious uses, so as to secure the welfare of his soul. In Anglo-Saxon times gifts for the benefit of the poor and the church were made in two ways; either by the conveyance of land to the donees, but so that the donor remained in possession during his life, or by death-bed confession, including a gift of his chattels to his confessor for pious uses (Pollock and Maitland, vol. ii. p. 317). At a later period the two kinds of disposition became blended together in a written document, which was called "cwiðe" (from which word the modern "bequeath" is derived), and the practice of making such dispositions became very common and was continued for several centuries after the conquest.

FEUDALISM interfered with the custom to a certain extent, inasmuch as the lord had a right to object to all gifts of land made without his consent, either during the donor's lifetime or on his death, but when the lord's consent could be obtained the gift was recognised. The Royal Courts, however, which during the energetic reign of Henry II. had been newly organised and acquired a large extension of powers, began to invalidate death-bed gifts of land, the reason being that a man was not supposed to be in full possession of his faculties when making such gifts, an argument which, to a certain extent, reminds us of the *querela inofficiosi testamenti* of the Roman law. About the same time (12th century) the right of PRIMOGENITURE was established in England with reference to land; the realty went henceforth to the heir-at-law, that is to say, the person entitled according to the rules of primogeniture, and became on the owner's death severed from the movable property, to which another course of devolution was applicable. Testamentary gifts of *land* were no longer recognised.

As the chattels bequeathed by a testator's will were generally given to pious uses, the administration of this part of a testator's estate had already been for some time in the hands of the ecclesiastical authorities; and when the devolution of land was finally separated from the devolution of chattels, all questions relating to the validity of wills were taken over by the ecclesiastical courts. This led to the introduction of wills more akin to the wills of Roman law, and to the appointment of an EXECUTOR, a mode of procedure derived from Germanic sources, but adopted by the CANON LAW. The executor was not, however, to dispose of the entire property of the testator in accordance with the direction contained in the will. These directions do not seem at any time—except under special custom—to have displaced the rights of the testator's widow and children.

It appears that the general rule was that one-third went to the widow, one-third to the children, whilst the remaining third was called the dead man's part, and went according to the direction of his will. If there were no children, or if there was no wife surviving the testator, the property was divided into halves. During the early stages of the law of primogeniture the heir-at-law seems to have claimed the children's part (Glanville, vii. 5), but already in 1215 the children's right is definitely recognised (Magna Charta, 27).

In most of the southern parts of England the rule according to which the wife and children had indefeasible rights in respect of a part of the husband and father's chattels, gradually fell into disuse, but it remained in force in the city of London with respect to freemen, in the principality of Wales, and in the ecclesiastical province of York, until it was repealed by statutes respectively passed in 1724, 1696, and 1692. The act relating to the city of London recites that many wealthy inhabitants refuse to become freemen of the city "by reason of an ancient custom within the said city restraining the freemen of the same from disposing of their personal estates by their last wills and testaments."

In the meantime the rule according to which real estate could not anywhere—except under local custom—be disposed of by will, but went to the heir-at-law, had also been repealed by the Wills Act of Henry VIII. in 1540, the result being that from the beginning of the 18th century absolute freedom existed throughout England of disposing of real and personal estate by will.

It deserves mention that the wills gradually introduced into England in the manner described above, originally differed in several essential respects from the wills of Roman law (see Pollock and Maitland, vol. ii. pp. 312-314), and that the last remaining important difference did not disappear until the 1st January 1898. According to Roman law the whole of a testator's property became vested in universal successors, or one universal successor, called the heirs or the heir. According to English law there was from an early period a universal successor as regards personal property, viz. the executor or administrator, but the real estate, from the time that wills disposing of real estate were sanctioned by statute, did not necessarily vest in one person, but passed in respect of each part of it to the person to whom it was devised by the will, whilst such parts of the real estate as were not disposed of by the will passed to the heir-at-law. By virtue of the Land Transfer Act 1897, which came into force on the 1st January 1898, real estate now passes to the executor or administrator in the same way as personal estate; the executor or administrator being now exactly in the same position as an heir who had accepted the inheritance subject to the BENEFICIUM INVENTARII (*q.v.*).

The development of the English law of wills may be recapitulated as follows:—At first there are no regular wills, but only gifts in contemplation of death, mainly for ecclesiastical purposes. Under the influence of the clergy, regular wills appointing executors are gradually introduced, but such wills dispose of personalty only, the realty, except under special local customs, goes to the heir-at-law, until in 1540 wills disposing of realty are sanctioned. Universal succession as regards personalty and singular succession as regards realty continue

to exist until 1898, when universal succession is established for the whole estate. To this extent English law has now become assimilated to the laws derived from Roman law, but on the other hand the gradual abolition of the rights of legitim originally existing in favour of wife and children, which occurred in England, have created a new difference between England and Ireland and the rest of Europe including Scotland.

The following table illustrates the rights of children as to legitim in a number of European countries, it being understood that the issue of deceased children represent their deceased parent or ancestor. The widow or widower has no claim to legitim except in Scotland, where she is entitled to one-third if there are children, and to one-half if there are none; but the widow or widower has in many countries other claims on the estate. In many countries the parents or more distant ancestors of a testator are entitled to legitim if he leaves no issue, but the ancestor's portion is generally smaller than the children's portion.

Amount of Legitim in case of Survival of

Countries governed by	1 child	2 children.	3 or 4 children.	5 or more children.
Scotch Law	1/3 *		1/3 *	1/3 *
German Common Law	1/2		1/2	1/2
Prussian Code	1/8		1/2	1/2
Saxon Code	1/3		1/2	1/2
Baden Code	1/2	2/3	2/3	2/3
French Code	1/2	2/3	2/3	2/3
Austrian Code	1/2	1/2	1/2	1/2
Swedish Statute	1/2	1/2	1/2	1/2
Italian Code	1/2	1/2	1/2	1/2
Portuguese Code	2/3	2/3	2/3	2/3
Spanish Code	2/3 †	2/3	2/3 †	2/3 †

* If no parent survives, 1/2.

† 1/3 must go in equal parts; the remaining 1/3 may be appointed in unequal parts.

Many codes contain elaborate provisions as to the calculation of the shares, and as to the grounds on which children may be disinherited (*e.g.* certain crimes committed against the testator, immoral or dishonourable conduct, etc.).

The undesirable economic effects of the exaggerated rules as to legitim existing in countries governed by French law have been frequently discussed, but a moderate restriction of the power to give property by will to strangers, or to some children to the exclusion of others, is thought advantageous in countries where such restrictions exist. On the other hand, the complete freedom of English law does not seem to have caused discontent, and it is quite possible that the greater spirit of enterprise which has hitherto distinguished the English race is not unconnected with the fact that, except in so far as any settlement provides to the contrary, no child is of right entitled to any part of his parent's fortune. It is, however, clear, from the historical sketch given above, that the difference between the English and the continental rules was not caused by deliberate choice, but by a combination of accidental circumstances.

[Sir Henry S. Maine, *Ancient Law*, chs. vi. and vii.—Salkowski, *Institutionen*.—Sohm, *The Institutes of Roman Law*, translated by Ledlie.—Schulin, *Das griechische Testament verglichen mit dem romischen*.—Brunner, *Deutsche Rechtsgeschichte*, vol. i. p. 79.—Heusler, *Institutionen des deutschen Privatrechts*, vol. ii. pp. 621-654.—Pollock and Maitland, *History of English Law*, vol. ii. pp. 312-361.—Lassalle, *Das System der erworbenen Rechte*.]

E. S.

WILSON, GLOCESTER, may be regarded as the wildest of all the writers on currency. This is evinced in his doctrines that "gold is no more essential to the guinea than the brass or ivory of the ruler is to its inches. . . ." "Paper, as the more abstract expression of value, is more likely to be uniform in value than gold." It is charitable to surmise that beneath these phrases there may have lurked some rudiment of the conceptions which we now connect with a TABULAR STANDARD.

Defence of Abstract Currencies in Reply to the Bullion Report and Mr. Huskisson, by Glocester Wilson, F.R.S., 1811.—*A Further Defence of Abstract Currencies*, by Glocester Wilson, F.R.S., London, 1812.

[F. A. Walker, *Money*, p. 296. See also *Quarterly Review*, 1811, vol. v. p. 252 *et seq.*, Canning on the kindred fallacies of Smith and ELIOT.] F. Y. E.

WILSON, RT. HON. JAMES (1805-1860), financial member of the council of India. He went into business early in life, but retired in 1844, after having started the *Economist* to represent free-trade principles. The first number appeared 2nd September 1843; he was the sole editor, down to his departure for India, when he was succeeded by Walter BAGEHOT, who married Wilson's eldest daughter. In 1847 he became M.P. for Westbury, between 1848 and March 1852 was secretary to the board of control, and was financial secretary to the treasury in the Aberdeen coalition ministry until March 1856. In 1859 he was vice-president of the board of trade. He resigned in order to take the post of financial minister in India, and died at Calcutta.

"Wilson dealt with political economy like a practical man . . . [His] predominating power was what may be called a business-imagination. He had a great power of conceiving transactions. Political economy was to him the science of buying and selling, and of the ordinary bargains of men he had a very steady and distinct conception" (W. Bagehot, "Memoir," *Economist*, 17th Nov. 1860, p. 1289).

Influences of the Corn Laws as affecting all Classes of the Community, and particularly the Landed Interests, London, 1839, 8vo (3rd ed., 1840. "One of the best and most reasonable of the late tracts in favour of the unconditional repeal of the corn laws," M'Culloch, *Lit. P. E.*, p. 80).—*Fluctuations of Currency, Commerce, and Manufactures referable to the Corn Laws*, London, 1840, 8vo.—*The Revenue; or, what should the Chancellor do?* London, 1841, 8vo (foreshadows the financial policy commenced by Peel and continued by Gladstone).—*Capital, Currency, and Banking; being a collection of a series of articles published in the Economist in 1845, on the Principles of the Bank Act of 1844, and in 1847, on the recent Monetarial and Commercial Crisis; concluding with a plan for a secure and economical Currency*, London, 1847, 8vo (advocating severe bullionist views).—*Financial Measures for India: a Speech*, London, 1860, 8vo (the principal proposal was the introduction of the income tax, severely criticised in Sir W. Trevelyan's minute).

[Biography by Bagehot in *Economist* (*ut supra*) and shorter life by the same writer in *Ency. Brit.*, 8th ed.—*Annual Register*, 1860, pp. 500-509.—*Gent. Mag.*, October 1860, p. 432.] H. R. T.

WILSON, THOMAS, LL.D. (about 1520-1581), was a statesman and divine under Elizabeth; he sat in parliament in 1563 for Mitchell in Cornwall, and in 1571 and 1572 for Lincoln city; he was master of requests, secretary of state in 1577, and after holding the post of master of St. Katherine's Hospital, then on its original site near the Tower of London, for several years, was made dean of Durham in 1579.

Besides treatises on rhetoric and logic he was the author of a *Discourse upon Usurie* (published, according to the title-page, in 1584, though the prefatory epistle is dated 1569), a dialogue between a preacher, a lawyer, a merchant, and a civilian. The preacher, supporting his position by Scripture and the Fathers, utterly condemns all interest on every kind of loan, and would have usurers punished like thieves or murderers; the lawyer, with other texts of Scripture, and a law of Justinian to bear him out, draws a distinction between fair interest and "biting" usury, between business investments and charitable loans; and points out that interest is not merely a reward for the kindness of lending, but compensation for risk and for foregoing the use of the money. The merchant takes his stand on the argument that trade would stop if nothing were to be gained by it, but the civilian in a tedious oration supports the preacher's position with quotations from the canon law, and like him allows no interest on loans except when the principal money is not repaid at the date originally fixed. To solve the merchant's difficulty, however, he seems to allow interest to be paid on capital lent for business purposes, evading inconsistency by calling such lending letting out to hire, on the ground that the capital, if lost by the borrower, will not be restored to the lender. To the surprise of the modern reader the preacher's final rejoinder entirely converts his audience, and the penitent merchant engages to lend freely in future, and even to restore all he has taken by usury in the past.

[*Gent. Magazine*, new series, iii. 468.—Fuller, *Worthies* (Lincoln).—Willis, *Not. Parl.*—Wood, *Fasti Oxon.*—*Parl. Hist.*, i. 756, for speech on usury bill.—Cooper, *Athenae Cantab.* (with full list of authorities).—Cunningham, *Eng. Indus. and Commerce, Mod. Times*, pp. 79-95.] E. G. P.

WINCHCOMBE, JOHN. See NEWBURY, JACK OF.

WINDING-UP. This expression is used as a general term for the transactions necessary on the dissolution of a partnership or company, to realise the assets, to pay off the liabilities, and to divide the surplus among the parties entitled. In the case of companies, the winding-up also takes the place of bankruptcy proceedings. A company may be wound up voluntarily or by the court, but in the case of a voluntary winding-up the court may, on application, make an order placing the liquidation under the supervision of the court, and a voluntary winding-up may also at any time be transformed into a compulsory winding-up by the court.

[See companies acts generally, and more particularly The Companies (Winding-up) Act, 1890.—Palmer's *Company Precedents*, pt. ii. (Winding-up) 6th edition, 1896.] E. S.

WINDOW TAX. See TAXATION.

WINKELBLECH, K. G. See MARLO, KARL.

WITT, JOHAN DE (1623-1672), born at Dordrecht, murdered at the Hague, was without doubt one of the greatest, if not the greatest statesman of his age. Descended from a very able family, whose members served their country in several different capacities, the young De Witt very early distinguished himself by his extraordinary ability and perspicacity. The mathematical sciences especially interested him. Notwithstanding, however, his early predilections, he studied law at the university of Leyden, and in 1647 became an advocate at the court of Holland at the Hague. His capacity, however, procured him as early as 1650 the position of "pensionaris" of Dordrecht, one of the oldest and richest cities of Holland, and in 1656 that of "raadpensionaris" of Holland. In this capacity he was for about twenty years the leader of the internal and external politics of the united provinces, and he intended to make the republic fully independent of the authority of the House of Orange (the stadtholder William II. died in 1650 without leaving an adult successor), and to secure a place for it at the head of the nations of Europe. His opposition to the restoration of the stadtholdership was the cause of many a conflict with the people, and afterwards with England after Charles II.'s accession to the throne.

His policy as a statesman falls out of the scope of this dictionary. Into the region of theoretic political economy De Witt, who wrote but little, never entered. His opinions on the practical financial and economic questions of his time may be gathered from the little book of P. DE LA COURT entitled *Interest van Holland*. This book contains a complete defence of De Witt's policy, and the manuscript, corrected by De Witt himself in a number of places, and enlarged by two chapters, was published at his instigation. Chapter xxxix., written by De Witt, contains an ample defence of his financial policy, and of the conversion of the debt, at that time amounting to 140 million florins, in 1655, from a 5 per cent into a 4 per cent stock. The amount thus saved was reserved for amortisation of the debt, and this amortisation-fund would every year be augmented by the saved interest, in order to pay off the whole debt in forty-one years. In consequence of this conversion and amortisation, maintained until 1665, the burden of the interest was, notwithstanding the raising of new loans to an amount of about 15 millions, diminished in 1672 by nearly 1½ millions.

De Witt's pamphlet on *Waardije van lyfrente in proportie tot losrente* appeared in 1671, and

contains, for that time, a very remarkable demonstration of the desirableness of negotiating life annuities as a means of borrowing money, for, on the basis of a payment of 6½ per cent, it proved even more advantageous to the state than an ordinary loan at 4 per cent. De Witt did not fear a diminution of the national capital as a consequence of his proposal, trusting that it would give his countrymen a strong inducement to save. And the rapid amortisation of life-annuities was an advantage to the state when compared with ordinary loans. His calculations were based on the hypothesis that, beginning from the third year, the chance of life for 50 years more was 1 : 1; at the age of 53 years the chance to live still 10 years was ⅘ : 1; at the age of 63 years ½ : 1; at the age of 73 the chance to live further 7 years ⅓ : 1; and at the age of 80 years the chance of death 1 : 1.

[From the very numerous books about De Witt and his age, we mention: James Geddes, *History of J. de Witt* (English), the Hague, 1879.—A. Lefèvre Pontalis, *John de Witt*, translated by A. Stephenson, London, 1885, 2 vols.] C. A. V. S.

WOLFF, CHRISTIAN VON (1679-1754), professor of mathematics in Halle, 1706-23, 1740-54, and Marburg, 1724-40, and of the law of nature and nations in Halle, 1740-54:

Wrote a system of philosophy speculative, *i.e.* cosmological, psychological, and theological, and practical, *i.e.* ethical, economical, and political, which held its own until superseded by that of KANT. He was an eclectic follower of LEIBNIZ, and therefore an individualist and an idealist. He derives society from the contract or quasi-contract of its members, but sometimes omits quasi-contract (*V. G.*, § 2). The object of the contracting parties is to attain their own "perfection" (*J. N.*, vii. § 144), not "happiness," though the two ideas are closely allied. The motives and means to attain perfection can be deduced from "human nature," as the successive propositions of Euclid are from Euclid's axioms and definitions; and each proposition contains a duty. This code of duties is called, after PUFENDORF, *The Law of Nature*, and contains an inextricable tissue of moral and social maxims, and of legal enactments, in which no allowance is made for social and legal growth.

He is quite devoid of the historical faculty, and the Chinese government, the praise of which caused his exile, 1723-40, figures alongside of the current prejudices of his time as expressions of the law of nature. In politics he is an absolutist, but justifies passive resistance. In economics, in the modern sense, he writes that the law of nature (1) fixes the price of such things and services as conduce to the "necessities, conveniences, and amusements of life" (cp. A. SMITH) so that none may want for necessaries; (2) therefore necessaries common to all have no price; (3) it determines value by the labour and expense of production, (4) plus interest on money proportionate to the returns on *res fructuosae*. We might on reading this be tempted to think of (1) living profits and wages; (2) modern ideas as to cost and use-value; (3) and scarcity and value; and (4) the productivity of capital; but Wolff meant by a law of nature not what happens, but what ought to happen, and his only notion of bringing these "laws" into operation is to make them state-laws. He is a high priest of the Police School (see POLICE). He is a mercantilist, and calls that state the strongest which has most men and money, and especially the latter—for there cannot be too much money, and money can buy men, but men who want for food are too many—and he calls that man rich who has "money to spare," and writes of trades and other pursuits as "ways of making money" (*Oec.*, index *s.v. pecunia*), and condemns gold and silver plate as making money less, besides being luxurious. But he does not identify wealth and money. Thus money, he writes, when used as the test of wealth, is used in a loose sense, and includes debts that are due, *res fructuosae*, and all things having money value (*J.N.*, pt. iv. § 352): and one of his works cites the fable of Midas (*Oec.*, § 791). Money in the strict sense "represents" things for the purpose of measuring their value, and is general purchasing power. At least these things are written in the book of natural law; and natural law is not a social tendency, but a counsel of individual perfection. He does not discuss economical problems from any other point of view than that of an all-pervading didacticism.

Works by Wolff connected with political economy belong to his practical, not his speculative philosophy; and are —*Vernünftige Gedanken von dem gesellschaftlichen Leben der Menschen*, 1721, 1756 ("society" includes "economics" and politics).—*Jus Naturae methodo scientifica pertractatum*, 1740-48, 1764-66; 8 parts; *Jus Gentium m. s. p.* 1749, being the ninth part: these works are abridged in *Institutiones J.N. et G.*, 1751, trans. German, 1754, also in a French version by Formey, 1758. Pt. i. states duties to self, others, and God; pts. ii. and iii. rights of ownership; pts. iv. and v. contractual rights, including iv. 2 *De Pretio rerum et pecunia*; pt. vi. is miscellaneous; pt. vii. gives laws of societies less than states; pt. viii. of states.—*Oeconomica*, 1754, ed. and partly written by Hanovius; "economics" is used in Aristotle's sense as the policy of societies less than states.—*Discovery of the cause of the multiplication of Corn*, 1734, an Engl. trans. of the first of two treatises on scientific agriculture, 1718 and 1730.—*The real happiness of a People under a philosophical King, i.e.* Chinese Emperors, 1750, an Engl. trans. of his *Oratio*, 1726, which caused his exile when delivered in 1723; see Carlyle, *Frederick the Great*, in his *Works* (1882), xxii. p. 179, vol. xxiv. p. 207.

[Erdmann, *History of Philosophy*, trans. by W. S. Hough, 1892, vol. ii. p. 219.—W. ROSCHER, *Geschichte der National Oekonomik in Deutschland*, p. 847.] J. D. R.

WOLOWSKI, LOUIS FRANÇOIS MICHEL RAYMOND (1810-1876), born at Warsaw, died at Paris. He was educated in France, returning, at the age of eighteen, to Warsaw, to graduate at that university. The revolution of 1830 excited violent emotion and baseless hopes among the youth of Poland. Wolowski's French education and his personal popularity caused him to be suspected, imprisoned, and condemned to death by the Russian government. When the revolution broke out he regained his liberty, took up arms, and was sent to Paris by the provisional government as secretary to the legation. When the rebellion was suppressed he remained in Paris, where his family joined him. He quickly passed his examinations in law, and was employed in the office of the famous lawyer Dalloz. He was naturalised in 1834, began to write, and started the *Revue de Législation et de Jurisprudence*.

The government in 1838 attempted to suppress all limited companies. Wolowski opposed this severe measure with such force that it did not pass. This success rendered him popular, and in 1839 he was placed in the chair of *Législation Industrielle*, recently established at the *Conservatoire des arts et métiers*.

Wolowski's eloquence enabled him to instruct his hearers without wearying them. He spoke several languages, was familiar with foreign literature, especially that connected with moral and political science, and soon won for himself a distinguished place among French economists.

After the revolution of 1848, he boldly attacked

the socialist doctrines of Louis BLANC who presided over the Government commission on labour. Unfortunately his arguments were not all equally good—that on the limitation of competition being lamentably weak. With DUNOYER he believed in immaterial capital. The reforms, though incomplete, in the mortgage system of France, were due to Wolowski, who proposed that there should be an open syndicate of all the landed proprietors in France, this syndicate to issue, with or without government guarantee, but with its approval, mortgage bonds like those employed in Germany and Poland, which was only effected after the *coup d'état* of 1851. In 1852 a decree was issued authorising the establishment of the *Banques Foncières*, replacing the costly and difficult notarial contract of circulation of bonds payable to bearer. A *Banque Foncière* was established at Paris of which Wolowski was director, and he formed two others at Nevers and Marseilles.

There were troubles at the outset, and the necessity of unity was immediately perceived. Wolowski, who had originally thought of only one syndicate, desired the reunion of the three into one, working throughout France — and, appointing a governor, became himself simply an administrator in his own institution. He soon after became interested in the monetary question, supporting the system in existence before the suspension of the coinage of silver. He considered the ratio of 15 : 1 between gold and silver to be fixed by nature, or to be one which would vary but slightly. With regard to banks of circulation he approved of unity, and considered that where the state did not itself issue notes to bearer payable at sight, it should directly supervise this operation. The creation of bank notes was, in his eyes, coining money, and he highly admired the Bank Act of 1844 of Sir Robert PEEL. In 1848 he was elected to the constituent and legislative assemblies. A sincere republican, he held no office during the empire, but in 1871 he again offered himself for election, and became a member of the national assembly. He was a vigorous supporter of the income-tax as preferable to the semi-protectionist system of taxation proposed by M. Thiers. In 1876 he was, shortly before his death, appointed senator for life.

In 1855 he succeeded to the chair vacated by Blanqui's death at the academy of moral and political science. He wrote much, and early showed a great predilection for the historical over the deductive method — he believed all masters of the science to be of that way of thinking, except J. B. SAY, whom he reproached with dogmatism. He translated the *Principes d'économie politique* of Roscher, 1855, 2 vols. 8vo, into French, and the *Économie politique* of G. A. L. Cibrario, 1859, 2 vols. 8vo, writing introductions for both. That to Roscher's book is an economic manifesto in favour of the HISTORICAL METHOD (*q.v.*). This perhaps is the best thing he wrote. He supported free trade without reserve, but too often allowed himself to lean on official regulations and centralisation.

His first book, *Études d'économie politique et de statistique*, 8vo, 1848, is made up of separate works. In 1864 he brought out *Les finances de la Russie*, 8vo, which, supporting as it did the Polish view, excited loud complaints in Russia, and *La question des banques*, 8vo, the reproduction of his lectures at the *Conservatoire des arts et métiers*, followed in 1867 by *La Banque d'Angleterre et les banques d'Écosse*, 8vo (trans. into English by Somers), another form of the same subject. *La Liberté commerciale et les résultats du traité de commerce de 1860* (1869), 8vo, appeared at the time when the commercial treaties with England and other countries began to be given up, and *Le change et la circulation*, 1869, 8vo, when the bank question and the monetary question were being discussed. The latter subject was treated on more directly in *L'or et l'argent* (8vo, 1870). He also translated two remarkable and original works, *Petit traictie de la première invention des monnoies*, by Nicholas ORESME, Bishop of Lisieux, written in 1376, and *Traité de la monnaie*, by Nicholas COPERNICUS, the celebrated astronomer (1526)—the two form a large volume, published in 1864. We need only notice among many pamphlets on subjects of the day, *Résultats économiques du payement de la contributions de guerre en Allemagne et en France*, 1874, which consisted mainly of extracts from different publications with which he was connected and which are quoted below. He also wrote in *Revue de législation et de jurisprudence* (1834-50), and for *Le siècle*, a daily paper, from 1837 to 1848, for the *Revue des deux mondes*, from 1857 to 1868; finally for *Journal des économistes* and the *Compte rendu des séances de l'Académie des sciences, morales, et politiques*, from the date of their commencement (1842) till his death. From 1843 onwards he was one of the most industrious and distinguished members of the society of political economy, of which he became vice-president in 1858; and was one of the founders of the statistical society of Paris, and president from 1874.

[Émile Levasseur, *La vie et les travaux de Wolowski*, 8vo, 1877.—Ant. Rouillet, *Wolowski, sa vie et ses travaux*, 8vo, 1880.—J. Rambaud, *L'œuvre économique de L. Wolowski*, 8vo, 1882.]

A. C. f.

WOMEN'S WAGES. See WAGES OF WOMEN.

WOOD, W. (fl. about 1724), a Bristol iron merchant, notorious through his purchase of a patent for the issue of copper coins in Ireland. The agitation thus produced, and fanned by the DRAPIER'S LETTERS (see also SWIFT, JONATHAN), was stopped by cancelling the obnoxious patent with compensation to Wood, who at first refused to yield up his privilege.

[Lecky, biographical introduction to Swift's *Prose Works* (London, 1897), pp. lxx-lxxv.]

C. F. B.

WORK, REGULATION OF. See INDUSTRY, ORGANISATION OF; LABOUR IN RELATION TO THE LAW.

WORKHOUSES.

Workhouse, p. 672; Workhouse Test, p. 674.

WORKHOUSE.—A workhouse may be defined as an institution supported by the poor-rate

for the necessary relief of the aged, sick, casual, and able-bodied poor and their children. By considering the history of poor relief in regard to these classes, we may trace how the workhouse has been developed.

Before any legal system of relief for the "impotent" was introduced, the aged and infirm poor were in some measure provided for in hospitals or by alms. Legislation (12 Rich. II. c. 7) first required the impotent to abide in the place where they were; then (22 Hen. VIII. c. 12) licensed them to beg within appointed limits; then (27 Hen. VIII. c. 25) provided that alms should be collected for them; then (1 Ed. VI. c. 3) ordered that they should be lodged in convenient houses and employed, "if not so lame and impotent but that they may work"; and then (14 Eliz. c. 5) no longer suffered them to beg, but provided for them "in hospitals or 'other abiding or working houses,'" or (39 Eliz. c. 3) supported them by necessary relief out of the rates. This act, and the Poor Law Act (43 Eliz. c. 2) still in force, provide generally for raising competent sums of money for the "necessary relief" of the "lame, impotent, old, blind, and such other among them being poor and *not able to work*." It did not provide "hospitals or other abiding or working houses" for them; but, apart from outdoor relief, they would continue to be lodged in such houses and in almshouses. (The Hospitals, part of the system of ecclesiastical relief, were in many instances municipalised. Cp. in Henry VIII.'s and Ed. VI.'s reigns, St. Bartholomew's and St. Thomas's, and St. Peter's Hospital at Bristol, which became the workhouse.) In the workhouses of 9 Geo. i. 7, they would be maintained and possibly employed (cp. GILBERT'S ACT). At the present time workhouses are, in fact, in great part "hospitals" or almshouses for the "impotent." To a limited extent employment or occupation is provided for them. The sick are provided for in sick wards, or, in the larger towns, in separate poor-law infirmaries. They are not specially referred to in 43 Eliz., but are included in the "others not able to work."

The casual poor, or vagrants, were punished in various ways, and subsequently (18 Eliz. and 39 Eliz.) committed to work in houses of correction, which also bore the name of workhouses—the word now applied to a house of correction in the United States. Afterwards, in its later form, the workhouse of the poor law, with its casual ward, met the needs of the casual poor or vagrant. The house of correction became and remained a prison for offenders under the vagrancy acts.

Next, as to the able-bodied poor: poor relief is closely related to labour questions. At any time of difficulty the questions of wage, vagrancy, and the care of the aged or "impotent," arise almost simultaneously. Statutes and the history of the workhouse indicate this. The able-bodied poor person, "not exercising any craft, nor having whereon to live," under a system of regulating wages by law, was required (23 Ed. III.) to serve at the accustomed wage, with committal to jail as a penalty. And on this system, if employment were scarce, he would, on the other hand (as in 18 Eliz. c. 3), be provided with work if willing to labour. Accordingly (39 Eliz.), he was to be supplied with work on profitable terms without or within a house of correction possessed of the necessary stock. This general provision is limited by the Poor Law Act (43 Eliz.) to the setting to work of children and "such persons as, being married or unmarried, having no means to maintain them, use no ordinary or daily trade of life to get their living by." In that act no mention is made of a workhouse; but, as has been shown, the thing already existed.

Two interpretations of the Poor Law Act, and two theories, have dominated at different times. One, which accorded rather with 39 Eliz., would impose on the overseers the provision of work to all poor and needy persons being willing to labour. This coincided with a theory that the labour of the poor *might* be made profitable as well as educational and disciplinary, and thus led to the workhouse being adapted to a "house of industry"; or, as in Gilbert's Act, 22 Geo. III. c. 83, which excluded areas incorporated under it from the operation of the Poor Law Act, it harmonised with the view that employment should be provided for the poor outside the house, and that the workhouse should be used only for the aged and infirm—*i.e.* as an abiding or working house, which, as it happened, was its old, possibly its original use. These two conceptions had great influence at different times, but especially in the latter part of the 18th century. The failure of the house of industry and industrial farm was due to the following amongst other causes. The work depended on contracts, and the failure to obtain contracts—especially at times of commercial depression—threw the whole organisation of indoor relief out of gear. The contracts were accepted on terms of pauper labour, and were often of little or no profit. Thus the workman outside was effectively undersold. The labour in the workhouse was frequently undisciplined and bad; and the paupers were so troublesome to manage that they were often left absolutely idle. To carry on a farm, outside labour had at times to be procured, while in winter work enough could not be provided, and the people had to be put on the roads. There was a disinclination to refer people to the workhouse as a house of industry, and thus after a few years it failed to serve as a test.

The other theory relied on a strict interpretation of the words quoted above from the Poor Law Act. It insisted that the position of the pauper should be less eligible than that of the independent workman, and that the poor law had to provide necessary relief to the able-bodied on this condition, and had not to furnish employment to the poor at large. On this theory the workhouse became a poorhouse for the maintenance and employment of those who would accept "the offer of the house," *i.e.* relief on the less eligible condition. The plan succeeded in several parishes for a time about the year 1722 (9 Geo. I. 7), and in other instances here and there, proving its efficacy at the period of extreme pauperisation at the beginning of the present century. It was afterwards revived under new conditions in 1834 under the new Poor Law Act (4 & 5 Will. IV. c. 76), when pauperism was wide-spread, and the administration of poor relief was in the greatest confusion. The union workhouse was then established (see UNION, POOR LAW), and by the outdoor relief prohibitory (1844) and regulation (1852) orders, framed under § 52 of the new Poor Law Act, relief to able-bodied men was refused except in the house, while a central authority, the poor-law commission or board, was established to give unity and guidance to the new administration. By the outdoor labour test order (1842) permission was given to the guardians, at times of distress, to relieve able-bodied men out of the house in return for a task of work, on the understanding that half the relief at least was given in kind; and in the regulation order, which applies to most large towns, this plan was adopted without the proviso required by the test order that it should apply only to times of distress, and subject to report to the poor-law board. Thus the rigour of the new poor law was modified conditionally at the discretion of the guardians. The result, towards which no doubt other causes have co-operated, has been an enormous reduction of able-bodied pauperism. Thus in 1850, when already it had been largely diminished, it was 1·2 per cent of the population above fifteen years of age; but in 1891 it was only 0·5. With regard to the aged the test was not pushed, but the poor-law commissioners advised its use to prevent "partial" relief, *i.e.* relief to persons who have "some," not "no," means. The commissioners advised the erection of workhouses for different classes, and recent reform appears to be taking that direction.

It is difficult to see how, from the economic standpoint, any other policy of relief to the able-bodied than that of 1834 is defensible. There is now no state regulation of wage to justify as its counterpart the provision of work to the poor and needy generally; and if relief in aid of wages, or in substitution of wages, is injurious, it follows that, in the main, those relieved should be so assisted as to be, as far as possible, industrially a negative quantity. The offer of the house ensures that, if they accept relief, this will be the result.

With regard to the workhouse for children—in the "house of industry" the labour of children was of great importance. Now education in district or separate schools, or in country unions at the public elementary schools, has taken its place.

[Burn, *History of the Poor Law*, 1764.—Eden, *State of the Poor*, 1797.—Golding, *Historical Account of St. Thomas's Hospital, Southwark*, 1819.—Poor Law Commissioners, *Report* (*large edition*), 1834; and *Annual Reports*, 1835, 1836, especially Appendices and Inspectors' Reports.—

Aspects of the Social Problem, 1896.—*Poor Law Orders*, Macmorran and Lushington, 1890.—*Annual Reports of Local Government Board.*—"The State and the Unemployed," *Charity Organisation Review*, vol. ix. p. 439, 1893; and generally Ashley, *Economic History*, vol. i. pt. 2, 1893.] C. S. L.

WORKHOUSE TEST. By the workhouse test, as it is called, relief is granted by the poor-law guardians on the condition that the applicant accepts an order for admission to the workhouse or poorhouse. The method appears to have come into vogue in the early part of the 18th century. By 9 Geo. I. c. 7 (1723) parishes were enabled to combine to provide a workhouse, and "any poor person" who refused to enter the house lost his title to relief. Wherever and so long as the test was applied, it reduced pauperism.

The poor-law commissioners of 1834 adopted as "the first and most essential of all conditions" applicable to all administration of poor relief, for which funds were levied compulsorily, the principle that the situation of the "individual relieved" should "not, on the whole, be made really or apparently so eligible as the situation of the independent labourer of the lowest class." They based this principle both on evidence which showed that necessary relief given conditionally on admission to a well-regulated workhouse, or under similar restrictions, tended to reduce pauperism; and on the observation, that, while others applied freely for relief, non-parishioners—who could only obtain it after they had been passed back to their parish,—did not apply for it, since relief subject to removal was less "eligible" than self-maintenance. In their report they applied the principle more particularly to able-bodied men, and advised its adoption in the form of an offer of maintenance to them in a well-managed workhouse, where the necessaries of life only would be provided, and where, in general, as much labour would be required as would be done by the independent labourer outside. The applicant is thus made the arbiter, and has to make his choice between relief under unattractive conditions and maintenance by his own exertions. If the two restrictions just mentioned be neglected the test will lose its efficacy. Residence in the workhouse may then become more eligible than independence—a danger that cannot be considered altogether visionary if the standard of comfort in the house tends to rise above that of the independent labourer of the lowest class. Since 1834 the policy sketched by the commissioners has, with limitations, been enforced under the orders of the poor law, now the local government, board.

For results, see article WORKHOUSES. C. S. L.

WORKMEN'S BUDGETS are statements compiled from information furnished by workingmen of their income, its sources, nature, and amount, and their expenditure with details of the nature and quantity of commodities purchased. Such budgets have long been regarded as forming the basis of social statistics, giving the only means of knowing the economic condition of a people, and of tracing the relative progress of different nations towards civilisation and economic independence, of studying the effect of climate on custom, and of estimating the incidence of indirect taxation. Much attention has been given, especially by the school of Le Play (see LE PLAY) and at international congresses, to the collection of budgets in their most scientific and easily comparable form. The following budget, which shows the approved method of tabulation for international comparisons, and indicates the chief points to be studied, is from *Les ouvriers des deux mondes* (see LE PLAY).

Budget (for one Year) of a Nottingham working-tanner's family, 1888 (*condensed*). *Reduced from French currency and weights.*

RECEIPTS.

	In kind.	In money.	Percentage of Total.
FROM CAPITAL—	£ s. d.	£ s. d.	
Real Property	..	..	..
Personal Property—Cash, £8	..	..	..
Implements for trade £0 5 6 } at 5%	..	0 0 3	..
" for domestic work 2 10 0 } at 5%	0 2 6	..	..
Right to trades-union benefit balanced by subscription	..	..	..
GIFTS	..	..	..
	Approx. s. d.		
WAGES of *head* of family 284 days at 6 8	..	94 12 7	33·6
" *eldest son* (lithographer) 284 " 5 10	..	82 16 4	29·4
" *second son* (clerk) 106 " 2 0	..	10 12 0	3·8
" *daughter* (lace maker) 286 " 3 3	..	46 6 8	16·5
" " (hat maker) 208 " 2 0	..	20 16 0	7·4
" " (lace maker) 286 " 1 2½	..	17 7 9	6·2
Household work (mother and daughter) 215 " 0 0	..	..	..
Mending clothes 77 " 1 2½	4 12 5	..	1·6
Washing 20 " 2 5	2 8 0	..	·9
HOME INDUSTRY—			
Household washing	1 15 5	..	·6
	8 18 4	272 11 7	100·
Family: father, aged 55; mother, 54; two sons, 22 and 19; four daughters, 29, 25, 13, 11.	Total		£281 9 11

EXPENDITURE.

	Weight in lbs. approx.	Price per lb. approx.	Total Expenses. Value of goods consumed in kind.	Total Expenses. Money spent.	Percentage of Total.
I. FOOD.		s. d.	£ s. d.	£ s. d.	
(a) Food consumed at home.					
Cereals—					
Bread	3691	0 1·1	..	16 14 10	
Fats—					
Butter	201	1 0·6	..	10 11 1½	
Lard	57	0 7	..	1 13 5½	
Oil	4·4	1 1·2	..	0 4 9½	
Dairy produce—					
Milk	..	..	..	5 16 6	
Eggs (108 dozen)	108 doz.	1s. per doz.	..	5 8 0	
Cheese	229	0 7·9	..	7 9 9	
Meat and Fish—					
Beef	606	0 7	..	17 12 0	
Veal	22	0 8·8	..	0 16 0	
Mutton	688	0 6·1	..	17 9 5	
Pork	44	0 7	..	1 5 7	
Fowls	9	0 8·5	..	0 6 1½	
Fish	476	0 4·4	..	8 12 9½	
Vegetables and Fruit—					
Potatoes	3669	0 0·95	..	14 12 10	
Greens	1153	0 0·75	..	3 12 5	
Roots	115	0 0·5	..	0 4 2	
Onions	58	0 1·3	..	0 6 5	
Tomatoes	18	0 10·7	..	0 16 0	
Fruit	498	0 1·2	..	2 10 10	
Condiments and Stimulants—					
Salt	115	0 0·2	..	0 2 1	
Pepper	4·4	0 7	..	0 2 7	
Vinegar	29	0 2·4	..	0 5 8½	
Sugar	459	0 2·2	..	4 3 2½	
Tea, coffee, cocoa	150	1 8·3	..	13 11 4	
Fermented drinks—					
Beer				12 16 0	
Wine				1 0 0	
Whisky				5 11 4	
(b) *Food and drink* outside house				40 15 2½	
Total Food				193 10 4	68·8
II. DWELLING EXPENSES—					
Rent				13 0 0	
Furniture				5 0 0	
Coal				4 4 6	
Light (Gas, £1 : 6 : 6; Candles, 12s. 6d.)				1 19 0	
Total II.				24 3 6	8·6
III. CLOTHES—					
Father and sons: bought				14 0 0	
home-made (including repairs)			£1 19 5		
Mother and girls: bought			..	18 16 0	
home-made (including repairs)			2 12 11½		
washing (cost if done outside)			4 5 11½	2 2 1	
Total III.			8 16 4	34 18 1	15·5
IV. INSTRUCTION, RECREATION, MEDICAL ATTENDANCE—					
Religion			..	2 14 7	
Education			..	0 19 8	
Music and books			..	0 9 7	
Charity			..	1 3 0	
Amusements: Tobacco, theatres, dancing lessons, £4 : 16s. Entertainments: Newspapers, £1 : 5 : 8			..	6 1 8	
Doctors and Medicine			..	1 0 0	
Total IV.			..	12 8 6	4·4
V. EXPENSES CONNECTED WITH BY-INDUSTRIES, DEBTS, TAXES, AND INSURANCE—					
Debts and Taxes, nil			..	..	
Interest on value of tools			..	0 0 3	
Subscription to trades-union balanced by potential benefit			..	..	
Savings, principally of the young girls			..	7 10 11	2·7
Totals			8 16 4	272 11 7	
			281 9 11		100·

Budget (Week) of a shepherd (Dorset). *From the Labour Commission, 1893*, The Agricultural Labourer, vol. i. part v. For other budgets see the Reports of the Assistant-Commissioners, *passim*.

Family: a shepherd, wife, and three children, aged one to six years.

	s.	d.
Receipts per week—		
Man's wages (house, garden, wood, and potato-patch free)	12	0
Expenditure per week—		
Six loaves	3	0
Milk, 7 pints	0	7
Tea, ¼ lb.	0	6
Sugar, 2 lbs.	0	4½
Bacon, 3 lbs.	1	6
Butter, ½ lb.	0	6
Cheese, 4 lbs.	1	0
Meat (for Sunday)	1	0
Salt, etc.	0	2
Lights	0	4
Coal, ½ cwt.	0	8
Soap, soda, and starch	0	5
	10	0½

This is typical of a simple budget useful for furnishing data for rough calculations.

Collections of budgets are distinguished as intensive and extensive. An intensive budget or monograph is shown in the tanner's budget here given, the table being accompanied with minute descriptions of the social and economic circumstances of the class represented. The extensive method is best illustrated by the mammoth collections of the American labour bureaux. Numerous "blanks" are issued asking for income and expenditure under a limited number of headings, and an average budget of an average family is obtained. All the detailed accuracy of Le Play's method is lost, but compensation is found in the broadness of the view obtained, and in the elimination of individual errors by virtue of the general properties of large numbers. The two methods are held to be complementary to each other. Inaccuracies chiefly arise from the neglect of subsidiary earnings, the difficulty of allowing for income from capital and subsidiary earnings, and the wrong grouping of items, expenditure on luxuries being badly entered. There is also a risk that budgets may give too favourable a view of the thrift and consequently of the well-being of the working classes.

The general results obtained by a comparative study of budgets are summed up by Dr. Engel thus:—The greater the income, the smaller the relative percentage of outlay for subsistence. The percentage of outlay for clothing is approximately the same, whatever the income. The percentage of outlay for lodging, or rent, and for fuel and light, is invariably the same, whatever the income. As the income increases in amount the percentage of outlay for "sundries" becomes greater (quoted from *16th Annual Report, Bureau of Statistics of Labour, Mass.*, p. 152).

[WAGES, NOMINAL AND REAL. Le Play, *Les ouvriers européens. Compte rendu des travaux du congrès général de statistique à Bruxelles*, Jan. 1853; preliminary discussion.—*Bulletin de l'institut international de statistique*, tome ii. Engel; tome iii. Guérin; tome v. Cheysson et Toqué, with bibliography; tome vi. vol. i., Ogle, and vol. ii., Landolt, with bibliography; tome ix. Engel, analysis of *Salaires et budgets ouvrières en Belgique*, 1891.—Gruber, *Die Haushaltung der arbeitenden Klassen*, thorough discussion of and reference to continental budgets.—For English budgets see Eden, *The State of the Poor*, 1797.—Daniel Davies, *The Case of Labourers in Husbandry*, 1795; *The Companion to the British Almanack*, 1834.—Kebbel, *The Agricultural Labourer*, 1857.—*Journal of the Stat. Soc.*, London, 1841, p. 320; 1861, Purdy; 1893, Higgs (complete discussion).—Schulze-Gaevernitz, *The Cotton Trade in England and on the Continent*, trans. 1895.—Tuckett, J. D., *Past and Present State of the Labouring Population*, 1846.—R. D. Baxter, *The Taxation of the United Kingdom*, 1869.—Government publications: *Statements made by men in London* (c. 5228, 1887) and *Returns of Expenditure of Working-men* (c. 5861, 1889); *1st Annual Report of the Congested Districts Board for Ireland*, pp. 32-37. For American budgets see the following reports (numbers indicate years):—Washington, 1st, 6th, 7th; Senate reports, retail prices, 1892, wholesale prices, 1893; Conn., 1888; Ill., 1880, '82, '84; Kans., 1885, '87, '88, '89; Me., 1887, '89, '91; Mass., 1872, '73, '74, '75, '84; Mich., 1893; Miss., 1889-91; Nebr., 1890; R. I., 1887-88; N. J., 1879, '80, '83, '85, '86; Ohio, 1877, '78, '79, '80, '85, '86; Pa., 1878, 1878-9, '87.—Goold, *The Social Condition of Labour*, 1893, or *La Reforme Sociale* 1894.—V. Studnitz, *Nordamerikanische Arbeiterverhältnisse* 1879.—For European budgets, see Ballin, *Der Haushalt der arbeitenden Klassen* (bibliography), 1883.—Blanqui, *Des classes ouvrières en France pendant l'année 1848.*—Dehn in Hirth's *Annalen des deutschen Reiches*, 1880, 1881, and 1882; see also 1877 (Goltz).—Goltz, *Die Lage der ländlichen Arbeiter im deutschen Reich*, 1875, and others.—Laspeyres in *Concordia*, a working-class newspaper, Berlin, 1875.—V. Lengerke, *Die ländliche Arbeiterfrage*, 1849.—Ducpétiaux, *Budgets économiques des classes ouvrières en Belgique*, 1855.—Singer, *Untersuchungen über die sozialen Zustände in den Fabrikbezirken des nordöstlichen Böhmen*, 1885. Reports of H.M. consuls on the condition of the industrial classes in foreign countries, 1870-72. See also Engel, *Das Rechnungsbuch der Hausfrau*, 1882, and *La réforme sociale*, 1892, pp. 680 and 687, and Marshall, *Principles of Economics*, 1895, p. 191.—*Salaire et durée du travail dans l'industrie française*, 1897.—Hirschberg, *Die soziale Tage der arbeitenden Klassen in Berlin*, 1897.—*Statistisches Jahrbuch der Stadt Berlin*, vii. and viii.]

A. L. B.

Workmen's Budgets are detailed statements of the income and expenditure of working men classified in such a way as to show the sources of income and the expenditure (absolute and relative) for the satisfaction of various wants such as food, clothing, shelter, education, etc. The primary object is to give a picture of the condition of the working class, and to compare its well-being among different nations and at different times in the same country (progress of the working classes). A

secondary object is to provide data for a theory of consumption by measuring the relative expenditure in different directions, and the variations due to differing size of income and of family. Practical use may be made of the budgets in estimating the burden of taxation on different classes, in considering the possibility of excluding women and children from factories, in inaugurating measures to encourage thrift and saving, etc.

Method.—There are various methods of preparing workmen's budgets; they are commonly classified as *intensive* and *extensive*. The intensive consists of the detailed study of a single working man's family by some person intimately acquainted with its condition, and who gets his information at first hand. The most famous example of this method is the Le Play monograph (see LE PLAY). Such a monograph gives the history, character, and social environment of each family, as well as an estimate of the sources of income and the items of expenditure. These minute biographies give us interesting pictures of social life, but they depend for their truthfulness upon the tact and knowledge of the observer, and are so few in number that it seems rash to regard them as typical of the whole working class. Out of the one hundred budgets published by Cheysson and Toqué, there is only one from the United States, a miner in California. A second method, advocated by Engel and explained in great detail by Landolt, may also be classed as intensive. It consists in persuading a workman to keep an exact account for a certain period (say a year) of all items of income and expenditure, giving quantities and prices of commodities purchased. These items are then classified by the observer, who must also add explanations in regard to the character and habits of the family (Landolt, *Haushalt-Statistik*).

The extensive method is to collect from a large number of families statements of their income and estimates of their chief items of expenditure. Merely sending out schedules to be filled out by working men is almost sure to result in failure. Thus in 1887, 730 schedules were sent out by the labour correspondent of the board of trade (England) to selected workmen, trade-union officials, and co-operators, asking for information upon their family income and expenditure. Only 36 returns were received, of which 2 were too imperfect for publication. An important modification of the extensive method is to have the schedules filled out under the supervision of an official who makes a personal visit to each family. By this method the United States department of labour in 1890 collected budgets of 5284 families, representing 27,577 persons. Of these 3265 could be treated as normal families, and the results analysed and tabulated.[1] The investigation covered families employed in nine industries (cotton, woollen, glass, pig iron, bar iron, steel, bituminous coal, coke, and iron ore), and distributed among 24 states of the United States, and Belgium, France, Germany, Great Britain, and Switzerland. In the United States families were also distinguished according to nationality.

The advantage of the extensive method is that it gives us material for comparing the expenditure of families with different incomes, of different size, of different country, of different nationality living in the same country (*e.g.* American, Irish, German, etc. in the United States), of the same nationality at home and in a new country (*e.g.* British iron workers in England and the United States), and in different occupations. The intensive method (Le Play) gives the best picture of the actual life of the labourer, and is undoubtedly the most accurate. But the extensive method has its use in the directions just mentioned.

For most of the comparisons mentioned above it is necessary to have some common basis, for it is obviously absurd to compare the expenditure of a family composed of two adults with that of a family with from two to five children. The famous Belgian inquiry of 1853 (Ducpétiaux) sought typical families composed of a man, wife, and four children of the age of sixteen, twelve, six, and two years. This greatly embarrasses the investigation, for it is not always easy to find families exactly so constituted which lend themselves to the investigation in other respects. A second method is to count two children as equal to one adult and use the adult as the standard. The American department of labour uses a rough system of weights. A consuming power is attributed—

To husbands of	.	.	.	.	.	.	100	units
To wives of	.	.	.	.	.	.	90	,,
To children from 11 to 14 years inclusive of							90	,,
To ,, ,, 7 ,, 13 ,, ,,							75	,,
To ,, ,, 4 ,, 6 ,, ,,							40	,,
To ,, ,, 1 ,, 5 ,, ,,							15	,,

For purposes of comparison 100 units is taken as the standard. Engel takes as basis 1 for the infant and adds $\frac{1}{10}$ for each year, making 3 for the age of twenty which is a maximum for women, and 3·5 at the age of twenty-five which is the maximum for men. A family composed of man, wife, and four children, of the ages ten, eight, six, and four years, would count as 13·3 units or "quets" (from Quetelet), as Engel calls them; while another family with four children, but of the ages eighteen, sixteen, fourteen, and twelve years, would count as 16·5 units or "quets." By this convention, comparison may be made between budgets from different sources, however various the size of the family.

Results.—The chief results obtained from family budgets thus far is to show certain relations between expenditure for food, clothing, rent, fuel, and other objects, and that these proportions vary for incomes of different size according to fixed rules. This was shown clearly by Engel in 1857 on the basis of the Belgian budgets of 1853, and his results may be reproduced here as the earliest of these comparative tables. The Belgian budgets were divided into three classes:—

I. Class—Very poor families with average income of 648·68 francs.

II. Class—Poor families with average income of 845·44 francs.

III. Class—Well-to-do families with average income of 1214·44 francs.

[1] "By normal family is meant one with the following attributes. It has no boarders or dependents; it does not own its dwelling-place; it has an expenditure given for rent, fuel, lighting, clothing, and food; it has both a husband and a wife; it has not more than five children, no one of whom is over fourteen years of age." *Seventh Annual Report of the Commissioner of Labour*, 1891, pt. ii. p. 858.

Items.	The Proportionate Expenditure of a Family of			
	I. Class.	II. Class.	III. Class.	All Classes.
	%	%	%	%
Food	70·89	67·37	62·42	65·83
Clothing	11·74	13·16	14·03	13·26
Dwelling	8·72	8·33	9·04	8·75
Fuel, etc.	5·63	5·51	5·41	5·49
Furniture, etc.	0·64	1·16	2·31	1·58
Education	0·36	1·06	1·21	0·98
Public burdens	0·15	0·47	0·88	0·58
Care of health	1·68	2·78	4·30	3·25
Personal service	0·19	0·16	0·40	0·28
Total	100·00	100·00	100·00	100·00

(Republished in *Bulletin de l'Institut de Statistique*, tome ix. Annexe I. p. 27.)

On the basis of this table, and the budgets published by Le Play, Engel formulated the following law since known by his name—that, "the poorer a family is, the larger the proportion of its income necessarily spent on bare subsistence," and still further, "that under similar circumstances, the proportion of the income spent for food is an unfailing index of the material well-being of a community" (*Bull.*, etc., ix. p. 26).

This earliest table may be compared with the latest, that of the American department of labour, which distributes the expenditure as follows: (*Seventh Annual Report*, vol. ii. p. 865.)

EXPENDITURES IN NORMAL FAMILIES: UNITED STATES.

Income.	Food.	Rent.	Clothing.	Fuel and Lighting.	All other Purposes.
	%	%	%	%	%
Under $200	49·64	15·48	12·82	8·08	13·98
$200-300	44·26	14·65	14·38	7·55	19·21
300-400	45·59	14·98	14·14	7·02	18·27
400-500	45·08	15·29	14·38	6·62	18·63
500-600	43·84	15·15	15·27	6·60	19·14
600-700	41·18	15·54	15·86	5·86	21·56
700-800	38·89	15·60	16·33	5·30	23·88
800-900	38·09	16·09	15·09	5·25	25·48
900-1000	34·34	14·96	16·84	4·74	29·12
1000-1100	34·74	15·12	17·53	4·50	28·11
1100-1200	30·65	12·23	16·51	3·89	36·72
1200 & over	28·63	12·59	15·71	3·02	40·05
All sizes	41·05	15·05	15·31	5·91	22·68

The proportionate expenditure for food decreases with increasing income; that for fuel and lighting also decreases; rent remains about stationary; clothing increases with increasing income; and a constantly increasing proportion of the income is set free for expenditures outside of the necessaries of life.

In all cases the absolute expenditure increases, but it increases in varying proportion, that is, the demand is more elastic in some cases than in others. Engel has illustrated this by giving in great detail the absolute expenditure for different objects in different incomes, from under 600 francs to over 2000 francs. The expenditure for animal food is 6·77 times as great in the higher as in the lower income, while that for vegetable food is only 3·08 fold. Clothing increases by 7·05 fold, while expenditure for shelter is only 3·88 times, and for fuel and lighting only 2·73 times as great. The expenditure for moral and intellectual needs increases faster still; and income increases faster than outgo. (The complete table is given in the note.)

PROPORTIONATE EXPENDITURE OF DIFFERENT INCOMES (ENGEL, p. 41).

	Under 600 fr.	600-900 fr.	900-1200 fr.	1200-2000 fr.	Over 2000 fr.
1. Food—					
Animal	1·00	1·67	3·01	4·91	6·77
Vegetable	1·00	1·37	1·57	1·98	3·08
Alcoholic Liquors	1·00	3·10	5·89	12·06	27·80
Garden cultivation	1·00	2·97	3·60	6·80	2·30
Total food	1·00	1·47	1·89	2·58	4·01
2. Clothing	1·00	2·06	2·81	4·37	7·05
3. Shelter	1·00	1·42	1·73	2·30	3·88
4. Fuel and Lighting	1·00	1·35	1·74	2·28	2·73
5. Care of health	1·00	1·53	3·24	5·36	9·83
Total for physical existence	1·00	1·52	1·97	2·76	4·29
6. Intellectual needs	1·00	2·56	6·78	20·77	17·78
7. Moral culture	1·00	2·00	5·00	7·00	1·00
8. Taxes, etc.	1·00	2·75	8·50	19·10	25·00
9. Amusements, etc.	1·00	1·97	1·75	3·83	5·36
10. Miscellaneous	1·00	14·50	8·00	17·00	21·50
Total expenditures	1·00	1·24	1·61	2·32	3·55
Total income	1·00	1·55	2·11	3·01	4·68
Deficit	1·00	1·46	1·14	1·42	1·57

In few cases also is there any detailed record of the furniture, the condition of which shows perhaps more clearly than anything else the prosperity or the reverse of a family. The information as to the incomes would be more useful if the occupations also were generally stated. With the incomes any supplementary earnings should be included, but it is difficult to secure the particulars of these.

The United States tables enable us to trace consumption in a different direction, viz., as affected by increasing size of family. The budgets were arranged according to the number of children, giving the following results (*Sixth Report*, p. 679):—

Size of Family.	Average expense per family for						
	Food.	Clothing.	Rent.	Fuel.	Lighting.	Sundries.	Total.
	$	$	$	$	$	$	$
No children	178·39	64·33	68·75	19·78	4·61	107·73	443·59
One child	189·20	77·17	64·96	21·56	4·29	110·66	467·84
Two children	211·10	88·64	76·23	22·59	4·56	94·68	492·80
Three children	227·56	90·15	73·79	24·42	4·77	103·89	524·58
Four children	233·21	100·12	70·91	24·01	4·61	92·50	525·36
Five children	252·72	109·14	73·95	27·03	4·80	104·94	572·59
Total and average	206·37	82·07	70·87	22·43	4·57	103·18	489·44

With increasing family, expenditure for food and clothing increases very rapidly—faster than income, while rent, fuel, and lighting increase comparatively little or vary irregularly.

We have thus instituted two comparisons on the basis of the expenditures of families differing either in income or in size of family. By these means we have thrown some light upon the theory of consumption. It appears that food requires an expenditure among the lower classes of more than one-half of the total income. Still further, that the demand for food is inelastic, the proportionate amount devoted to it decreasing with increasing income. Although inelastic, the demand for food is very pressing, increasing with the increasing number of children, and increasing faster than the total income. The demand for clothing is both elastic and pressing; increasing with increasing income, and increasing with increased size of family, and very much faster than the total increased income. The demand for shelter is inelastic, and not pressing, decreasing with increasing income, and remaining nearly stationary even with increasing family. The same may be said to be true in regard to fuel and lighting.

Other Uses.—Workmen's budgets suggest many other comparisons, as, for instance, between the labouring classes of different countries and of different nationalities. Some comparisons of this sort may be found in the United States Report. It must be said, however, that the material seems hardly accurate enough for safe generalisation. So, too, we have not sufficient material yet to compare budgets of successive periods, in order to show whether income is increasing, and how increasing income is spent. Engel found that incomes of the working classes had nearly doubled in Belgium from 1853 to 1891, but that about the same proportion was still spent on food, which seemed to show that the food-supply in 1853 must have been very insufficient. For further practical application of the facts learned from budgets, the reader is referred especially to the writings of Engel and Cheysson.

[The most exhaustive treatment of the whole subject is that begun by Ernst Engel under the title "Die Lebenskosten belgischer Arbeiter-Familien," published in the *Bulletin de l'Institut International de Statistique*, tome ix. 1895. This contains an introduction on Method, a critical examination and elaborate analysis of Belgian budgets, and a reprint of his original essay published in 1857 on *Die Productions und Consumptions-Verhältnisse des Königreichs Sachsens.* Engel intended to extend the examination to all countries, but his death (1896) will probably make the work a torso. Cheysson and Toqué, "Les budgets comparés des cent monographies de familles publiées dans 'Les ouvriers Européens' et 'Les ouvriers des deux mondes,'" published in the *Bulletin de l'Institut international de Statistique*, tome v. 1890. Landolt, "Haushaltstatistik." Bauer in Conrad's *Handwörterbuch der Staatswissenschaften*, s.v. "Konsumption," with exhaustive bibliography. Higgs, "Workmen's Budgets," *Journal of Statistical Society*, vol. lvi. June 1893. Sixth and Seventh Annual Reports of the Department of Labour, Washington, 1890 and 1891. Numerous budgets have been collected by state bureaus of labour statistics in the United States, especially Massachusetts, and by private individuals in various countries. Perhaps the latest is *Family Budgets, being the income and expenses of twenty-eight British Households*, 1891-94, compiled for the Economic Club, London, 1896.] R. M.-S.

WORKMEN'S LIVRET. See LIVRET.

WORKSHOP. This term first acquired a definite legal meaning on the passing of the Workshop Regulation Act 1867. A workshop is there defined to be "any room or place whatever, whether in the open air or under cover, in which any handicraft is carried on by any child, young person, or woman, and to which and over which the person by whom such child, young person, or woman is employed has the right of access and control"—factories and bakehouses being alone excepted (30 & 31 Vict., c. 146, §§ 4, 5). A later statute, Factory and Workshop Act 1878 (41 Vict., c. 16), distinguishes several kinds of workshops. These are domestic workshops, workshops in which neither children nor young persons are employed, where adult men only are employed, and where the labour is performed "in a private house or private room by the family dwelling therein," and "exercised at irregular intervals, and does not furnish the whole or principal means of living to such family" (sec. 98); concerning the conduct of which different regulations were made, further revised, and in some respects altered, by the Factory and Workshop Act 1891 (54 & 55 Vict., c. 75) and the Factory and Workshop Act 1895 (58 & 59 Vict. c. 37). This definition of a workshop is in some respects wider, in some narrower, than that of the cognate term factory. It is wider in respect of the extensive signification assigned to the term "handicraft," and of the circumstance that the definition of a factory requires that the process of production shall, with some named exceptions, be aided by mechanical motive power. In the words of the act, "Handicraft shall mean any manual labour exercised by way of trade or for purposes of gain in or incidental to the making any article or part of an article, or in or incidental to the altering, repairing, ornamenting, finishing, or otherwise adapting for sale any article"; the condition of producing for sale being a condition common to both categories. It is narrower by reason of the qualification that this handicraft must be carried on by a child, young person, or woman (not by men), and in a place "to which and over which the person by whom such child, young person, or woman is employed has the right of access and control."

The enforcement of the legal regulations as to workshops was at first vested in local authorities, but was transferred by the Factory and Workshop Act 1871 (34 & 35 Vict., c. 104) to the inspectors of factories. Some

further alterations of administration were made afterwards. The present system is the following: the sanitary inspection of workshops rests with the local authority in the first instance, but where this obligation remains unfulfilled the factory department has power to intervene. Their inspection for all other purposes, *i.e.* as to hours of labour, education of child workers, etc., is the duty of factory inspectors, as in factories; and a sort of reciprocal action is instituted between these two authorities, according to which it is the duty of either to assist the other.

[George Jarvis Notcutt, *The Factory and Workshop Acts* (Stevens and Sons).—Alexander Redgrave, C.B., *The Factory and Workshop Acts*, 1878 to 1891 (Shaw and Sons).—Victorine Jeans, *Factory Act Legislation* (Fisher Unwin).—R. Whately Cooke-Taylor, *The Modern Factory System* (Kegan Paul).—Evans Austin, *The Factory and Workshop Acts*, 1878-1895 (Knight and Co.).—May E. Abraham and A. Llewelyn Davies, *The Law relating to Factories and Workshops* (Eyre and Spottiswoode).] R. W. C. T.

WORLIDGE, JOHN (17th century), published in 1669, under the name of J. W., Gent., a work entitled, *Systema Agriculturae: the Mystery of Husbandry Discovered*, a compendious treatise, ranging more or less systematically over the whole field of agriculture, but not very discriminating, and, except in the remarks on bee-keeping, seeming to be compiled from earlier books and from hearsay, rather than founded on independent observation. The views propounded at the beginning of the book on the principles of life savour of alchemy, and those at the end on the weather of superstition; but there is plenty of sound sense in the practical chapters. The comparison of enclosures with champion or "chilterne" lands is interesting, especially the suggestion that enclosures discouraged drinking, because barley had been grown more easily than wheat in the open fields. The recommendation to grow clover, sainfoin, and lucern—more than a century before Arthur Young—as well as hemp and flax, shows that Worlidge was in the van of his age; and his advice to extend the cultivation of silkworms, and to imitate the Egyptians in the artificial hatching of eggs, prove him to have been readier than practical farmers usually are to try experiments.

[Cunningham, *Eng. Indus. and Commerce, Modern Times*, pp. 182, 183, 205.] E. G. P.

WORSENESS (in Assaying). The deficiency below standard fineness expressed in carats and carat grains is recorded by an assayer under the title of worseness (see ASSAY; FINENESS OF COINS). F. E. A.

WRIT. This word is generally used for documents by which proceedings are initiated in the courts of law. An action is begun by "writ of summons." A judgment is enforced by a "writ of execution," which may be a writ of FIERI FACIAS (*q.v.*), or of ELEGIT (*q.v.*), or some other specially named "writ." A writ of "Habeas Corpus" is issued when a person is alleged to be imprisoned without justification; a writ of "Mandamus" when an official is alleged to have omitted to perform some act which he ought to perform. A writ of "certiorari" is used when proceedings are to be removed from one court into another court. E. S.

XENOPHON. As is the case with so many of the celebrated men of antiquity, the exact date of the birth of Xenophon cannot now be determined. The date most commonly received is 445 B.C. Xenophon's father, Gryllus, seems to have been in easy circumstances, and Xenophon doubtless received the usual education of an Athenian gentlemen. He was one of the young men who gathered round Socrates. Serious, but not speculative, he was impressed rather by the philosopher's homely wisdom and strenuous virtue than by the subtler qualities of his genius. Soon after the close of the Peloponnesian war, Xenophon was induced by a friend, Proxenus the Bœotian, to join the expedition of the younger Cyrus against his brother Artaxerxes. The battle of Cunaxa, in which Cyrus was slain, was followed by the treacherous arrest of the Greek generals, which left the Greek army without a leader. In consequence Xenophon was chosen, together with the Spartan Chirisophus, to conduct the retreat. Its success is proof of his warlike energy and resource. But Cyrus had been the close ally of Sparta, the bitter enemy of Athens, and after the retreat had been accomplished Xenophon, like most of his comrades, took service with the Spartans in Asia. It is not surprising, therefore, that about the year 399 B.C. he should have been sentenced to banishment by the Athenians. Xenophon continued to serve with the Spartans, returning into Greece with Agesilaus and taking part in the battle of Coroneia (B.C. 394) against his countrymen and their allies. Subsequently he settled at Scillus in Triphylia, recently emancipated by the Spartans from the Eleans, where he devoted himself to literature and country occupations. He was married and had two sons, Gryllus and Diodorus, whom he is said to have brought up in the Spartan fashion. Upon the overthrow of the Spartan power at the battle of Leuctra B.C. 371, Xenophon was expelled from Scillus when it was re-conquered by the Eleans. The Athenians, who had transferred their jealousy from Sparta to Thebes, seem to have revoked his sentence of banishment soon afterwards, but he did not return to Athens, preferring to reside at Corinth. His sons served in the Athenian force sent to the assistance of Sparta in 362 B.C., and Gryllus was slain in the skirmish which preceded the battle of Mantineia.

Xenophon lived to a ripe old age, it is said upwards of ninety years, but the date of his death is unknown.

Xenophon was a man of action and of letters, but in no sense a man of science. His surviving works are numerous and range over a wide field. The *Cyropaedia* is a historical novel; but Book viii. 2 (see Bonar, *Philos. and Pol. Econ.*, p. 31) "shows us a more 'modern' Division of Labour and Separation of Trades in full operation"; the *Hellenica* is a set history; the *Anabasis* an account of the expedition of Cyrus, including the retreat of the Greeks; the *Memorabilia* a collection of reminiscences of Socrates. Two of his works can be said to relate to economics, though in an indirect way. The *Oeconomicus* is not, as its title might suggest to English readers, a treatise on political economy. Œconomics (Gk. *οἰκονομική*) signified simply the art of housekeeping. The *Oeconomicus* is a Socratic dialogue designed to show that there is such an art, and to illustrate its character, partly by conversations between an Athenian husband and his wife. It contains much good sense and sound morals, and gives a conception of Greek domestic life, but little or nothing that is economic in the technical sense. The treatise on the revenues of Athens is equally practical in its character. It contains suggestions for improving the revenue which the state derived from resident aliens under its protection, and for increasing the returns from the famous silver mines at Laurium, which were public property. It is interesting to the student of Greek history, and also to students of the history of public finance.

[See Smith, *Dictionary of Classical Biography and Mythology*, art. "Xenophon." The editions of Xenophon's writings are numerous. The treatise on the revenues of Athens has been illustrated by Hildebrand, *Xenophontis et Aristotelis de oeconomia publica doctrinae illustrantur.*— Boeckh, *Public Economy of the Athenians.*— Schömann, *Athenian Constitutional History.*— Gilbert, *Greek Constitutional Antiquities*, etc.]

F. C. M.

YANTAR, the Spanish equivalent of the English royal right of PURVEYANCE (*q.v.*). It had been commuted into money in Castile as early as the 13th century. It was called *Cena* in Aragon. E. Ca.

YARDLAND, a virgate, the amount of land usually held by a villein.

[See VILLANUS and VIRGATE.] R. H.

YARDLING OR YERDLING. One of the English designations of a villein, whose typical holding was a virgate or YARDLAND (*q.v.*). The holder of half a virgate was a Half-yerdling.

[See VILLANUS and VIRGATE. In the north of England *husband* was the equivalent.] R. H.

YARRANTON, ANDREW (? 1616-1685) He gives a sketch of his own life. "I was apprentice to a linen draper when this king was born [Chas. II., 1630], and continued at it some years . . . but the shop was too narrow for me . . . I took leave of my master . . . lived a country life some years . . . was a soldier, and sometimes had the honour and misfortune to lodge and dislodge an army. In 1652 I entered on iron works for several years . . . surveyed the three great rivers of England and some small ones, and made two navigable and a third almost completed . . . next, studied ryelands . . . and wrote two books (on clover), on which the country-men fell pell-mell, and in great part of five shires it doubled the value of the land, and I served the countries with the seed for many years."

Some time before 1660 Yarranton was commissioned by eleven gentlemen to travel through Germany and the Netherlands to make observations on husbandry and trade. He went on a second commission about 1663, to discover the mode of manufacturing tin-plates in Bohemia, and was also at Dresden in 1667, when the news came of the Dutch attack on Chatham. This suggested to him the idea of his second book. His first work was published 1661. Its second edition in 1663 was called *The Improvement Improved, or the great Improvement of Land by Clover.* It claims that 6 acres in clover are worth 30 in natural grass; gives rules for sowing it, for choice of soils, for feeding cattle on it, and a list of twenty-nine places, all in the West Midlands, where good seed may be had cheap. Incidentally he reviews the four obstacles to husbandry; they are ignorance, custom, "penny-wise, pound-foolish," and taking more land than one can manage. His second book, 1677, bore a title which, as he said himself, reads like a romance, and might stamp him as a projector and a hot-brain. *England's Improvement by Sea and Land, to outdo the Dutch without fighting, to pay Debts without Moneys, to set at work all the Poor of England with the Growth of our own Lands, to prevent unnecessary Suits in Law, with the Benefit of a Voluntary Register; Directions where vast Quantities of Timber are to be had for the Building of Ships, with the Advantage of making the great Rivers of England navigable; Rules to prevent Fires in London and other great Cities, with Directions how the several Companies of Handicraftsmen in London may always have cheap Bread and Drink*, by Andrew Yarranton, Gentleman, London, printed for the author 1677.

In the three and half years before the second part of this book was issued (1681), he somewhat altered the scheme he had laid down for it in 1677. The second part as it stands is a little less irregular in plan than the first part. It is divided into chapters, and has a table of contents, and more elaborate plates. There are several dialogues inserted, to bring out the secrets of the timber-trade, the iron manufacture, and even a lengthy outburst of poetry in praise of a land register. The pamphlets against him 1679-81 sprang out of the Popish plot agitation. Yarranton, as a Presbyterian and old commonwealth soldier, had himself been imprisoned 1661 on a "Presbyterian sham-plot," which he describes with some spirit in his tract of 1680 bearing that title. But for all the odium theologicum as well as odium politicum that inspired them, the pamphleteers can find little serious to attack in him. They are reduced to jeering at him, on the ground that his navigation projects had to be abandoned; his land-register bill was "kicked out" by the Commons; his club of threescore gentlemen, "the improvers of England," which met twice a week, had been broken up. His title page was parodied; "to make the streets navigable rivers, to harbour ships on a hill," and so on. All this, according to a sturdy champion on the other side, betrays "the Popish pettifogger," and "only made Yarranton's deserts more public, and England's improvements more honoured."

Yarranton's originality lies in his faculty of popularising and making practical the ideas current at the time. It was not he but (as he says himself), Sir R. Weston who brought in clover "about thirteen years ago," from Brabant; but it was Yarranton who by five years' careful experiment detected the causes of its failure at first—bad and dear seed, sowing too thin, choice of unsuitable soils, etc. His scheme of land registration was not new, it was often proposed in the projects of land-law reform encouraged by the great act of 1660; and in a debate in the Lords 1669 the decay of rents was traced to the want of a register. Indeed the same object had been aimed at in the statute of enrolments 1536, and only defeated by the later device of lease and release, which reintroduced secrecy of conveyance, a practice repugnant to the whole course of our law in ancient and in mediæval times (see LAND REGISTRATION).

As the advocate of a state bank, he was only one of many writers, beginning with Heath in 1622, who wanted a bank of credit on the Venetian model, rather than a bank chiefly of deposit on the Dutch model, proposed by LAMBE in 1659. The further idea that the fund of this bank might be the land itself, had already been urged by POTTER 1659 in *The Tradesman's Jewel*, and CRADOCKE 1660, who promised by this means to lend landowners nearly the full value of their land, to make these land bills pass as current money, and thus to increase trade, to raise a revenue without taxes, and yet to incur no hazard.

When he guaranteed "to set all the poor of England on work," he was equally following in the steps of other writers. His panacea was the development of the manufactures of linen and iron. The others had prescribed a similar development either of fishing (Goffe, 1625), or of spinning (Taylor, 1652), or of crown lands (CHAMBERLEN, 1649), or of enclosures, or even the identical things Yarranton was recommending—iron, Dudley, 1661; linen, HAINES, 1649.

His proposals for making rivers navigable had been often anticipated, as in a bill 1635 to deal with the Bristol Avon, and in other cases which he himself describes to us. The study of foreign countries had been already illustrated by Sir W. TEMPLE, *Observations on the Netherlands* (1672). The very title of Yarranton's book, *England's Improvement*, was a common formula, and had been appropriated by more than one of his predecessors; *e.g.* John SMITH, *England's Improvement Reviv'd*, 1673, to oust the Dutch from the fishing trade, and Blith's book, *The English Improver Improved, a new survey of husbandry*, 1652.

In fact, Yarranton was eminently a man of his time; an adapter rather than an originator; a man of practical insight rather than a theorist; a "projector" within sound business limits. What makes him attractive is his own character. He had exceptional versatility; he could turn his hand to anything, and in everything he had some success. He had a healthy curiosity and keen observation. He was eager and alert for the material welfare of his country. He had an affectionate zeal for his "children," as he calls them, "all poor men in England that labour in mechanic arts." His manifold interests, his resourcefulness, his optimism, his zeal for material progress, his readiness to learn from the foreigner, his belief in England's future, his combination of shrewd practice with imperfect theory, his half-vision of great principles, all are characteristic marks of the 17th century.

He has no literary pretensions. His writing is full of tautologies and repetitions; his argument is extraordinarily discursive; he is always going off at a tangent as soon as he sights one of his favourite topics. But what he has to say is said in a clear and unaffected way; and he is not cursed with the ambition to write in the tedious "high style" of the time. He is no scientific economist, and very far from being "the genuine founder of political economy in England" (DOVE); but he has an unrivalled eye for detail, and a great skill in vivid presentation of it.

Not a few of Yarranton's contemporaries surpassed him in grasp of economic truth. He cannot claim to have seized the true function of money like CHILD, the need of statistics like DAVENANT, or the grounds of free trade like Dudley NORTH. There is in him none of the penetrating analysis which led PETTY to the true nature of value and of rent, or which enabled BARBON to lay down the essential definitions of wealth, price, and exchange. Yet guided solely by native wit and by business experience, Yarranton often comes near to the light. Our climate and soil, the character of our people, and our constitution should, he says, make us great beyond any nation in the world. The prosperity of our neighbours is a gain to us and need not be a cause of envy. The lands of England ought to rise to thirty years' purchase. The use of a bank is to facilitate credit, not so much to hold deposits. The great obstacle to improvement in husbandry is obstinate custom. Honour, honesty, riches, strength, and trade are five sisters. The way to deal with the poor is by increasing employments. To secure this and to provide cheap food for the people, are the two things to study. "I appeal to every unprejudiced man if cheap corn, beef, wool, and candles will not make cheap cloth." Patents, as now granted, drive trade out of the kingdom. Most pamphlets miss the mark because their authors are not practical men and have never travelled. The Turk has failed because he never got the power of the seas. "It is the navy that must, under God, save this nation." His criticism of the working of corn-bounties, and of the Irish cattle acts, is almost worthy of Adam SMITH.

In Saxony he saw not a single beggar; so much employment was there, by the linen-tape, thread, and tin-plate trades. In Holland he saw that we could never beat the Dutch in fighting; their sands defend them, and enable them to use ships which draw five feet less than ours. Trade is their mistress, whom we never woo away for long; she loves "that dull and flegmatick air." The reasons are that their land is registered, their banks make paper as good as money, they have "lumber houses"[1] attached which lend money on goods at easy interest, they have "cut rivers" to aid traffic, and merchants' courts to determine cases. When he says, "every acre of Dutch land is as good as ready money," "land registered will equal cash, and will do in trade what ready money does," we can scent the land bank fallacy 1693-96. But when he goes on, "if here a man of £1000 a year wants a loan of £4000 he can hardly get it," and traces this to the difficulty of proof of title, he is right. Not for nothing had he been commissioner (probably 1653-54) for settlement of estates in Worcestershire. He would have had all the houses in London registered as they were rebuilt after the fire, and three or four similar registers in different parts of England. Then London would have as great a bank as Amsterdam, fishing would revive at Bristol and Hull, cloth trade at Lynn, wool at Exeter, and interest would sink from six to four per cent. Lawyers and debtors will oppose the scheme, but the register will be voluntary. There is such registration in Scotland, and land there is at twenty-four years' purchase; and in some copyhold manors as Taunton, and there it is twenty-three; but not in England generally, and land therefore goes for only sixteen.

Next in importance comes the linen trade; he would have flax grown in the counties of Oxford, Warwick, Leicester, Northampton; on an acre there would be 3 cwts. flax, which would make 400 ells of cloth at 3s. "I and my wife to employ the poor did promote the making of much fine linen." We might save the £2,000,000 a year now spent on foreign linen. Spinners, bleachers, weavers, fullers, should be brought over from Friburg, Harlem, Dort, Dresden. Children can hardly begin too young. Similar measures should be taken for the iron manufacture; the neighbouring commons should be enclosed and planted to supply fuel. There are 100,000 poor now costing 4d. a day who might instead be earning 8d.

The new manufactures should be protected for seven years by import duties on Dutch and German linen, and on Swedish, Flemish, and Spanish iron. They should be further aided by establishing, on the Saxon model, bank granaries for corn, at the head of rivers, *e.g.* Banbury, Witney, Radcot, Stratford. This would give the manufacturing populations and all the London handicraftsmen plenty of cheap food and drink, which should be prepared in public bakehouses and brewhouses at each populous centre. The rivers must be made navigable, particularly Trent, Thames, Cherwell, Stour, Avon, Wye, Dee. He had surveyed these rivers, and himself experimented with the Avon and the Stour successfully. His plans seem to be in a transition stage to the later age of canals; he is sanguine that the rivers only want some dredging and a few lock-

[1] Lumber houses, *i.e.*, Lombard houses, where advances on goods were attainable.

gates; the only canal he names is one to join Severn at Welshpool to Thames at Lechlade. In this connection he draws out plans for harbours, *e.g.* at Kingstown and Newhaven, and for new and cheaper dockyards at Wexford and at Christchurch. Other projects sketched in this book are a plan to prevent fires in London by providing special watchmen and stations for the supply of water and a sort of rude fire engines; "a university to improve art by endowing travelling students, as is done in mechanics at Neuringburg" (Nuremberg); a factory and water wheel for the manufacture of pins; the establishment of "a sea city" at Blackwall to accommodate a fishing population; the encouragement of the fisheries by improving the supply of cheap timber, iron, and salt, by registering and harbouring the fishing busses, by giving to the trade several years' exemption from taxes, by naturalising immigrants, by creating an old-age and pension fund; and, finally, two full descriptions of the proper way to cut out the foreign tin plate and linen-bleaching trades by superior materials and by the superior methods which had already been demonstrated by him in actual working.

[Eden, *State of the Poor*, p. 285.—M'Culloch, *Literature of Pol. Econ.*, p. 350.—Cunningham, *The Growth of English Industry and Commerce*, ed. 1892, vol. ii. pp. 190, 202, 229-255, 356.—Dove, P. E., *Elements of Political Science* (Edinburgh, 1854) has in an appendix a diffuse but readable account of Andrew Yarranton's chief book, and a eulogy of him as the "genuine founder of political economy in England."—*Social England* (Cassell and Co.) vol. iv. c. xv. pp. 489-60; c. xvi. pp. 517-31.] A. L. S.

YEARS, ESTATE FOR. See TERM OF YEARS.

YEN. 1. A gold yen weighs 25·72 grains; purity 0·9.

2. A silver yen weighs 416 grains; purity 0·9.

3. A Nippon Ginko (*Nippon*, Japan; *Ginko*, Bank) yen bank-note, always exchangeable there for one silver yen.

4. A paper yen must be accepted by all government offices, and for all payments as "one yen." Its redeemable value in silver or gold is not expressly stated.

In 1876 (at the time of a great excess of exportation) the paper yen was at a premium of 4 per cent above the silver yen; after the Satsuma rebellion, at a time of an increased issue of paper money, and a great excess of importation of paper money, it fell greatly in value below par; during the last few years, under favourable conditions, with a less amount of paper money in circulation, and after the intervention of the bank-notes of the Nippon Ginko, issued in consideration of the needs of the money-market, the paper yen has been always at par with the silver yen. The fluctuations of the relations of the values of gold and silver naturally affect the value of the paper yen.

5. Silver yen = 2 silver florins, formerly always reckoned equal to about 4 marks, now in reality worth three marks only.

[P. Mayet, *Agricultural Insurance*, London, 1893.]

YEN. The money of account in Japan, and also gold and silver coins bearing the same name.

The Japanese mint at Osaka was opened in December 1870, the currency system then introduced being as follows:—

10 rin = 1 sen
100 sen = 1 yen (or dollar)

The coins to be struck were:—

Gold:—			
20 yen	514·41 grains	900 fine	
10 yen	257·20 ,,	,,	
5 yen	128·60 ,,	,,	
2 yen	51·44 ,,	,,	
yen	25·72 ,,	,,	(the standard of value).
Silver:—			
50 sen	193·00 grains	800 fine	
20 sen	77·2 ,,	,,	
10 sen	38·6 ,,	,,	
5 sen	19·3 ,,	,,	
Copper Coins:—			
1 sen	110 grains		
½ sen	55 ,,		
1 rin	14 ,,		
Trade Coin (silver):—			
yen	416 grains	900 fine	

Gold was the standard of value, and the gold coins were legal tender to any amount. Silver coin was limited in legal tender to ten yen in any one payment, and copper coin to one yen.

The issue of the trade dollar, or *silver yen* (coined either for Japanese or foreign applicants), was intended to facilitate the operations of foreign trade. So far as Japan itself was concerned, this silver coin was only legal tender for the payment of import and export duties, and of other taxes at the open ports. It could not be tendered in payment for any internal taxes, and was not current throughout the country. It was also ordered that "in payment of duties and taxes at the open ports, the relative value of the silver yen and the standard gold coin will be for the present at the rate of 100 silver yen for 101 gold yen."

On the 28th February 1876, the weight of the silver yen was altered to 420 grains, in order to conform with that of the United States trade dollar, a coin which at that time largely circulated throughout the coast towns of China, and at Hong-kong. Subsequently, however, by a notification of 26th November 1878, the coinage of yen of this increased weight was discontinued, and the original weight 416 grains, reverted to.

On the 27th May 1878, a notification was made by the prime minister of Japan to the effect that "the trade dollar which has hitherto been coined for the convenience of commerce at the open ports, will henceforth be made universally current, and may therefore be used in making and receiving payments of taxes, and in all other public and private transactions."

From the 12th September 1879 the silver yen became the standard of value, the text of the notification of this further change in the currency system of Japan being as follows:—

"The Japanese silver yen of 416 grains weight and 900 fineness will henceforth be received at par with Mexican dollar by every department of the imperial government when tendered in payment of custom duties or on any other account opened, in Mexican dollars."

"On and after the 19th instant, aforesaid yen shall, when tendered in payment of any sum payable in Mexican dollars now due, or hereafter to become due, be received by all Japanese subjects in full payment thereof."

The number of silver yen coined and issued from the Japanese mint from the time of its opening, December 1870, to the 31st March 1896, was 151,210,000. During the same period the gold yen pieces struck had amounted to 2,037,055 only. The total value, however, of the five and ten yen gold pieces struck, being 45,890,000 and 18,710,000 yen respectively.

The Japanese government have announced their intention to revert to the gold standard of value, and a currency law has been passed giving effect to this decision. This law came into operation on the 1st October 1897.

The principal provisions of the new law are as follows:—

The standard of value is to be a gold yen weighing 11·574 grains of pure gold.

Coins will be issued in gold, silver, nickel, and bronze of the weights and fineness given below. The nickel coins will contain 75 per cent of copper and 25 per cent of nickel, the bronze pieces being of the composition of 95 per cent copper, 4 per cent tin, and 1 per cent zinc.

	Weight.	Fineness.
Gold Coins:—		
20 yen	257·2 grains	900
10 yen	128·6 ,,	,,
5 yen	64·3 ,,	,,
Silver Coins:—		
50 sen	208·0 grains	800 fine
20 sen	83·2 ,,	,,
10 sen	41·6 ,,	,,
Nickel Coins:—		
5 sen	71·9 grains	
Bronze Coins:—		
sen	110·0 grains	
5 rin	55·0 ,,	

Gold coins will be legal tender to any amount, silver coins to 10 yen, and nickel and bronze coins to 1 yen.

Worn coins diminished in weight by fair wear and tear will be exchanged by the government free of charge.

As regards coins now in use, it is provided that the "gold coins already issued shall circulate at twice the value of the gold coins issued under the provisions of this law." The silver yen "shall be gradually exchanged for gold coins according to the convenience of the government, at the rate of one gold yen for one silver yen. Pending the completion of the exchange . . . silver one yen coins shall be legal tender to an unlimited extent, at the rate of one silver yen for one gold yen; and the suspension of their circulation shall be notified six months in advance by imperial ordinance. Any of these coins not presented for exchange within a period of five full years reckoned from the day on which their circulation is suspended, shall be regarded thenceforth as bullion."

The five sen silver coins, and the copper coins of the old currency, will continue to circulate as before.

The coinage of silver yen has been brought to a close from the date of the promulgation of the new law.

F. E. A.

YEOMANRY OF CRAFTS. See JOURNEYMAN and JOURNEYMEN'S SOCIETIES.

YEOMEN

Meaning of the Term, p. 684; Their Numbers, p. 685; Their History, p. 686.

Meaning of the Term. Students of social history may be misled if they rely only on Macaulay's description of the yeomanry as "petty proprietors who cultivated their own fields with their own hands without affecting to have scutcheons, and enjoyed a modest competence." It is wiser to follow, point by point, Sir T. Smyth (*De Republica Anglorum*, 1583, I. xxiii.) and W. Harrison (*Description of England*, II. v. in Holinshed's *Chronicle*, 1577). The second edition of Holinshed, 1587, pp. 163b, 164b, which blends Smyth's and Harrison's views, states that yeomen have (1) "free land" (2) worth £6 annually, or in times past 40s.; and are (3) not entitled to a crest, being (4) "for the most part farmers to gentlemen." (1) includes "free tenants" of manorial lords, although W. Hale Hale insinuates that free tenants became yeomen on exchanging prædial for pecuniary dues (*Domesday of St. Paul's*, p. lv.). Again it would be difficult to exclude copyhold and customary tenants who are not freeholders in an age like that of Harrison, when it required an expert to distinguish them apart. Chamberlayne includes them (*Angliae Notitia*, 1669, pt. i. p. 179, ed. 1755), and so does Logan in Guillim's *Heraldry* (1679), and so does W. Marshall (*Norfolk*, 1787, vol. i. p. 7, and most Cumberland and Westmoreland "statesmen" were customary freehold tenants. Again Smyth's and Harrison's words directly recall those of the statute of 1429 which created those 40s. freeholders whose votes ruled England for 400 years, and of whom lessees for life were important members. In 1726 Swift (*Gulliver's Travels*, pt. iii. ch. 8) and in 1765 Blackstone (*Commentaries*, bk. i. ch. 12) identified yeomen with duly qualified rural voters. Chamberlayne's "yeomen freeholders" who were "more in number and richer than in any country of the like extent in Europe," refer largely to lessees for life. The wide prevalence of the lease for life was due partly to the fact that it had been substituted for a copyhold for life (E. Laurence, *Duty of a Steward*, 1727, pp. 59, 60), but chiefly to the fact that it conferred a vote (E. Wakefield, *Ireland*, 1812, ii. 300). Further, Harrison's "these are they that in times past made all France afraid," is unintelligible if it means that Frenchmen quailed before a lessee for life while they viewed a lessee for years with indifference; and (4) suggests that, like Bacon, he drew no hard and fast line between farmer and farmer. Bacon, too, attributes the French conquests to our yeoman infantry,

whom he defines as "the middle people between gentlemen and peasants," and he writes of the "tenancies for years, lives, and at will whereupon much of the yeomanry lived" (*Works*, vi. 94). In the great rebellion "the middle people" in this sense fought on the same side, so probably in the French wars. Latimer's first sermon before Edward VI., "My father was a yeoman, but had no land of his own," at £4 rent (ed. Arber, p. 39), clearly dubs a tenant farmer yeoman. The author of *Britannia Languens* wrote, in 1680, "our late wealthy yeomanry are forced to sink their rents or . . . fling up their farms" (*Early English tracts on Commerce*, 1856, p. 377; cp. Massie, *Ways and Means*, 1757, p. 45); and Lord Taafe uses the word of leaseholders only (*Observations*, 1766, p. 13). If these writers could not, still less could strict economists consistently exclude the general body of tenant farmers once they included lessees for life—a class whom they unanimously put on a lower level than other lessees (Defoe, *Tour through Great Britain*, 1725, ed. 1753, ii. 46; A. Smith, *Wealth of Nations*, bk. iii. ch. ii. and iv., pp. 174a, 186a, ed. M'Culloch; Jas. Caird, *English Agriculture*, 1851, p. 50). Consequently, there has been a tendency during the last century either to include or to exclude every one who could be called a tenant farmer. A. Smith calls all English farmers yeomen, adding that "a great part" of them are lessees for life (*l.c.*). A. Young's yeoman rarely occurs, but is always owner pure and simple. But the wide prevalence down to 1832 of the political sense of the term has caused much confusion; thus Caird, while rejoicing over the promotion of Devonshire lessees for life into lessees for years, never dreams that yeomanry are being extirpated (*l.c.*); indeed all writers since 1832 exclude all tenant farmers from the privileged category, and then wonder why yeomen have disappeared. (2) Every writer draws only a lower limit. Chamberlayne gives as their income £40 to £50, £100 to £200, or £200 to £400, the first class being commonest. In Cumberland and Westmoreland they have £5 or £10 to £50; in Surrey £200 to £400 (see *Reports to the Board of Agriculture*, 1793-1817, presided over by Sir J. Sinclair, Westmoreland, p. 18, Surrey, p. 73).

One of Marshall's Midland yeomen had £2000 a year. A. YOUNG wrote "Of all the divisions of landed property, that which is most to be approved is small and middling proprietors occupying their own estates, but not being gentlemen," and instances Suffolk yeomen of £200 to £400 per annum (*Annals*, vii. 523). "Respectable," "independent" are the Homeric epithets applied to them. Kay uses "yeomen" as something more than "peasant proprietors" (*Free Trade in Land*, 1879, pp. 106, 113, etc.). These qualifications ought perhaps to exclude the Wiltshire "yardlanders" (Marshall's *Abstract of the Reports. Southern Counties*, p. 206; contrast J. Phillip, *Memoirs of W. Smith*, 1844, p. 1), and the 144 co-owners of 3500 acres at Kirton (*Abstract. Eastern Reports*, p. 101), and those peasant owners of Axholme, who still thrive and multiply; and we should look for the analogue of yeomen in the middle-sized owners of foreign countries. In a recent report this middle class (23 to 115 acres) were said to own more of France than either large owners or peasant proprietors, and to have increased between 1862 and 1882 from 636,309 to 727,222, while the letting of land decreased from 27·49 to 27·09 per cent (*Parl. Reports*, 1890-91, vol. 83, p. 52). (3) This point has little importance after the last visitation of the Heralds (1686), but survives in A. Young who, in his *Southern Tour* (pp. 47, 70) and *Rural Economy* (Essay V.), refers to owner-farmers who are not called yeomen, and in modern reluctance to class farming squires and clergy as yeomen. It should be added to (4) that all writers by tacit consent exclude lessors except Brodrick (*English Land*, 1881, p. 173).

Their Numbers. (1) Domesday book, which omits the four northern counties, and possibly all who paid rent only (Nasse, p. 35), estimates English lords at 9271, villeins at 108,407, free tenants at 35,474. (2) Gregory KING (misquoted in C. DAVENANT, *Works*, ii. 185, Macaulay, Rae, Prothero, and others) in his *Natural Observations, etc. upon the state of England*, 1696, says there were 26,586 nobles, esquires, clergy, and gentlemen, 40,000 larger and 140,000 lesser "freeholders," and 150,000 "farmers." Assuming that "farmers" do not, then "freeholders" must mean farmer-owners and lessees for life, and must also mean copyholders and customary tenants, including lessors and owners of minute patches upon those common fields which, according to J. Laurence (*System of Agriculture*, 1726, p. 45), covered one-third of the land. But it is useless to make critical assumptions about a vaguely-expressed guess for which the author gives no grounds. (3) A. Young selected some 250 farms at random, and generalising to the kingdom at large, estimated English farmers once as 111,498 (*Northern Tour*, iv. 341, 364), later at 57,040 (*Eastern Tour*, iv. 462), and so on (cp. *Letters to the Yeomanry*, pp. 37, 60). (4) BEEKE says there were "at least 200,000 proprietors" in England and Wales in 1800 (*Observations on the Income Tax*, 1801, p. 21). (5) Our "New Domesday Book" (1874, vol. lxxii.) filled in owners from the rate-books in each parish, urban and rural; but it was not the business of rating authorities to fill in owners' names; so that the return being founded on irresponsible local hearing is worthless for our purpose. (6) According to our "agricultural statistics" for England (1887-97)

rented farms were, in 1895, 313,478; owned farms 48,601; farms partly rented and partly owned were 18,100; and 14 per cent of English farm lands were farmed by owners. "Owners" include squires with farms in hand, clergy with glebe lands over an acre, and possibly some copyholders. These are the only trustworthy general statistics since Domesday Book; (2), (3), and (4) ought never to have been or to be quoted by social historians.

Their History. (1) In the 16th century hereditary copyholders were cajoled out of their holdings or commonable rights (Strype's *Eccl. Mem.* II. i. 172 and 439), and yardlands were purchased (W. Stafford's *Compendious Examination, etc.*, 1581, *Pamphleteer*, v. 297), but the first process must have been rare since 43 Edw. III. and 7 Edw. IV., when villeins vindicated their rights as copyholders; and the second process may or may not mean that cottagers grew up into yeomen. Further, Latimer and More (*Utopia*, ed. Arber, 38, 41, etc.) do not inveigh against these evils, but against the evictions and rack-rents of lessors, and the adding of farm to farm by tenants (Strype, II. i. 167); and all the acts which directly limit the size of farms refer exclusively to "letten farms" (4 Hy. VII. c. 16 and c. 19; 25 Hy. VIII. c. 13 §§ 7-14; 27 Hy. VIII. c. 22; 2 & 3 Phil. and M. c. 2); so that their effect was to make squires farm their own land, a process which Mr. Leadham has vividly illustrated (Royal Historical Society, *Domesday of Enclosures*, 1517-18, ed. Leadham, 1897, p. 70), and which a second series of acts (6 Hy. VIII. c. 5; 7 Hy. VIII. c. i.; 5 and 6 Ed. VI. c. 5; 39 Eliz. c. 1 and c. 2), aimed at arresting. The crisis which was caused by the substitution of large pastoral for small agricultural farms affected tenant-farmers mainly if not solely. "Tenant-farmers," of course, include those who held for life, whether by freehold or copyhold tenure. (2) *In the 18th* and *19th centuries* two contradictory myths obscure history. (*a*) "There existed a race of men in the country, besides the gentlemen and husbandmen, called yeomanry, men who cultivated their own property, consisting chiefly of farms . . . the pride of the nation in war and peace; hardy, brave, and of good morals; by the influx of riches and a change of manners they were nearly annihilated in the year 1750, and are now but faintly remembered" (Letter to Sir T. C. Bunbury, 1795, British Museum, T. 1466), comp. Marshall's *Abstract. Western Counties*, p. 125), is a mere echo of Rousseau's primitive man, but suggested to Karl Marx, Laveleye, and numerous others, sober history. (*b*) The second myth is that the end of last century witnessed the heyday of the since vanished yeomanry, and the *Sinclair Reports* are cited as evidence. But their references to Devonshire and West Dorsetshire (Marshall's *Abstract. Southern Counties*, 268, 554, 570), to the 9000 "freeholders" of Kent[1] (Boys, ed. 1813, p. 28), and 5790 freehold voters for Gloucestershire (Rudge, p. 34), and North Riding freehold electors (Tuke, pp. 28, 30), refer to districts in which life lessees were exceptionally numerous; and Homer's "there is scarce any county in which the number of freeholders does not turn out upon an election poll much more considerable than formerly" (*Essay on Inclosure*, 1766, p. 15), very likely refers to similar districts. Mavor (*Berks*, 1808, p. 113) wrote that "one-third of the whole county is occupied by the proprietors of the soil"; but he assumed that the remaining two-thirds were occupied by yearly tenants or lessees for years, consequently under "proprietors" he must have included copyholders, etc., who were doubtless one-third of the county. Bishton's "infinite yeomen's estates" in Shropshire (*Shropshire*, 1794, p. 31) dwindled down on a closer inspection to "3000 copyholders and freeholders" (Plymley, *Shropshire*, 1803, p. 91). Brown's Derbyshire yeomen (*Derbyshire*, 1794, p. 14), and Kent's Norfolkshire yeomanry (*Norfolk*, 1796, p. 125), meant tenant farmers. To come now to history. A. Young perhaps thought that owner-farmers of a certain class were diminishing: "there are some parts of England (where small yeomen still remain) that resemble Bearne" (*Travels in France*, ed. 1889, p. 61); "small" means 40 to 80 acres (ed. 1794, ii. p. 412), and he means enclosed land; "still," of course, may mean that A. Young believed the Rousseauesque myth. He adds, "small properties are found everywhere" in France "to a degree we have no idea of in England," where they were "exceedingly rare" (*ib.* 402). John Arbuthnot (*Inquiry into the Price of Provisions*, 1773, pp. 126, 139, cited by TOYNBEE as A. Young) deplores "the loss of our yeomanry," by which he means the absorption of small by large hereditary freeholders, a phenomenon noted too by A. Hunter (*Georgical Essays*, 1803, vol. iv. p. 108); but ARBUTHNOT derives his facts from Dr. PRICE's figures (*Observations on Reversionary Payments*, published the year after Goldsmith's *Deserted Village*), which eventually proved the opposite of what they were meant to prove (Chalmers's *Estimate*, 1803, p. 216), and, as Arbuthnot admitted, were meant to prove the very different thesis that where wealth accumulates men decay, and that tenant-farmers were turning pluralists. This pluralising tendency of tenant-farmers is also deprecated by S. Addington (*Enquiry into enclosing open fields*, 1772) and T. Wright (*Short address on the Monopoly of Small Farms*, 1795),

[1] "A Gentleman of Wales,
A Knight of Cales,
And a Laird of the North Countrie,
But a Yeoman of Kent
With his Yearly Rent
He will buy them out all three."
Old Rhyme.

and the *Sinclair Reports* (*Abstract. Southern Counties*, 157, 247, 330, *Midlands*, 33) in certain districts; and for a reason obvious to us, but not to them, this tendency is sometimes noted as most active in those counties where there was money going and wages were high (*Abstract. Northern Counties*, 259, 282; cp. W. Stafford's pamphlet, *l.c.* p. 260). Consolidation, too, was the necessary preliminary and avowed object of the enclosure of intermingled copyhold estates (Davis, *Wiltshire*, 1813, pp. 48, 49). It is difficult to suppose that this movement did not implicate farmer-owners in some districts. In two large and four small districts this implication of farmer-owners can be traced. In Cumberland and Westmoreland the small "statesmen" disappeared with the disappearance of the hand-loom (Wordsworth in *Prose Works*, ii. 263, 286, and in Sir H. Bunbury's *Correspondence of Hanmer*, 440, and in *The Brothers*; cp. *Gentleman's Magazine*, 1806, p. 871; Pringle's *Westmoreland*, p. 40), and are now nearly extinct (Caird's *English Agriculture*, 1851, p. 360; *Parl. Reports*, 1881, vol. xvi. p. 236; 1895, vol. xvii., "Cumberland," p. 32). Marshall's 300 of Pickering (*Yorkshire*, p. 20); Stevenson's Portland Colony (*Dorsetshire*, p. 76); Th. ROGERS' Hampshire village (*Six Centuries*, p. 502). A. Young's yeomen of the redland district of Oxfordshire (*Oxfordshire*, p. 16) have followed in their wake. Further, in Kent and Essex, farmers are mentioned in the *Sinclair Reports* as purchasing their holdings; and yeomen owners existed in Lincolnshire; they are still as numerous as ever they were in Kent and Lincolnshire (*Parl. Reports*, 1881, xvi. 385 *et seq.*; 1882, xv. 299); and still exist in Essex (*Parl. Reports*, 1894, xvi. pt. i. p. 52). A. Young's accounts of Norfolk and Suffolk, and Vancouver's accounts of Hampshire yeomen still hold (*Parl. Reports*, 1894, vol. xvi. pt. iii. pp. 203, 204; 1895, vol. xvii., "Norfolk," p. 36). Add that individuals have withered here and there, and their place has been inadequately supplied by gentlemen farmers on the one hand, and by allottees under inclosure acts since 1845 on the other hand (Caird's *Landed Interest*, 123 *et seq.*), and beyond this farmer-owners (if we except the squire of Coke's type and the VILLEIN who passed through the stage of copyholder into that of labourer) have not played a great part in our history, and have only been important when inextricably intermingled with the great body of tenant-farmers or voters. They have for the most part kept outside the main stream of development, which has been from the manor to the triple system of to-day.

[Stubbs, *Constitutional History*, iii. 595.—Nasse, *Agricultural Community*, trans. 1872.—Seebohm in *Fortnightly Review*, N.S. vii. 226.—A. Toynbee, *Industrial Revolution*, ch. 5.—J. Rae, *Contemporary Review*, October 1883; comp. Brentano, *Agrarpolitik*, 1897, p. 123.—H. Traill, *Social England*, 1897, vi. 82.—A. Meitzen, *Siedelung und Agrarwesen der West-Germanen*, 1895, *et seq.*, ii. 119 *et passim*.] J. D. R.

YOUNG, ARTHUR (1741-1820), the most noteworthy of English writers on agriculture, came of a Suffolk family. After being engaged in farming for a few years, he began his career as a writer on agricultural subjects with *The Farmer's Letters* in 1767. For the next thirty-eight years an increasing stream of books and pamphlets, many of which passed into several editions, and were translated into French and German, poured from his pen. He travelled up and down England for months at a time, making the careful observations published in his series of *Tours;* and for the same purpose he travelled in Ireland in the years from 1773 to 1776; he founded the *Annals of Agriculture* in 1783, and contributed largely to its forty-six volumes; his journeys in France in 1787-1790 produced his most considerable work, the *Travels in France*, since recognised as the best authority for the condition of that country on the eve of the revolution; and in 1793 he became secretary of the newly-established board of agriculture.

Young's place in history is due, first, to his remarkable qualities as a keen observer, which give his works a permanent value as sources of information on the conditions of his time; and, secondly, to his own considerable share in stimulating the movement for the substitution of large farming for small, of enclosures for open fields, and of rotation of crops for periodical fallows. It would be a mistake to regard him as an economic theorist; his utterances on such subjects as rent and wages are all determined by his desire to increase the produce of agriculture; and he was no stickler for system or consistency. His best known phrase "The magic of property turns sand to gold"—which has been repeated incessantly since J. S. Mill quoted it in his chapter on peasant proprietors—is a thoroughly characteristic one.

[*The Autobiography of Arthur Young*, with selections from his correspondence, has recently (1897) been printed under the editorship of Miss Betham-Edwards. The most important of his works were the following: *The Farmer's Letters to the People of England* (1767).—*A Six Weeks' Tour through the Southern Counties of England and Wales* (1768).—*A Six Months' Tour through the North of England* (1770).—*Rural Œconomy* (1770).—*The Farmer's Tour through the East of England* (1771).—*The Farmer's Calendar* (1771).—*Political Arithmetic* (1774); pt. ii. (1779).—*A Tour in Ireland* (1780).—*Travels in France* (1792).—*General Views of the Agriculture of Suffolk* (1794), *Lincoln* (1799), *Hertfordshire* (1804), *Norfolk* (1804), *Essex* (1807), *Oxfordshire* (1809), *Sussex* (1793) was the work of his son, Rev. Arthur Young.—*General Report on Inclosures* (1807). There has been a new and inexpensive edition of the *Tour in Ireland*, ed. A. W. Hutton (1892);

to the second volume of the latter is appended an exhaustive bibliography by J. P. Anderson.

Among the numerous comments and critical essays upon Young may be mentioned T. R. Malthus, *The Principle of Population*, 8th ed. pp. 449-455.—J. S. Mill, *Principles of Political Economy*, bk. ii. ch. vi. § 7.—H. Baudrillart in *Publicistes modernes* (1863).—R. E. Prothero, *Pioneers and Progress of English Farming* (1888), ch. vi.—F. S. Stevenson in *The Westminster Review*, cxxxix. (1893), p. 109; and, above all, for Young's personality, Leslie Stephen in *The National Review*, xxvii. (1896), p. 489.] W. J. A.

The first and foremost feature of A. Young's two great books on France (ed. 1794) and Ireland (ed. 1892) is that utility in a materialistic sense is their ideal. He prefers turnips to "fat ecclesiastics" (*Fr.*, i. 77), and writes in the very spirit of MANDEVILLE, that "a king had better make love to a handsome woman," like Louis XV., "than to his neighbour's provinces," like Frederick the Great (pp. 82, 265). He hates military history (p. 255), distant dominions (pp. 193, 437), war debts (p. 576), the middle ages (p. 67), *grands seigneurs* (p. 62), jobbing gentlemen, and idlers, too feudal in their ideas to occupy themselves with trade (*Ir.*, ii. 26, 248), with the hatred of TUCKER, and for the same reason—they are so much waste. But utility, though the test of political and social health, is not with him the sole spring of individual action; "prejudice and habit govern mankind as much even as their interest" (p. 128), and though he loves the naturalness of ROUSSEAU (*Fr.*, i. 22, 72), like BURKE he condemns "natural right" as unhistorical (p. 119). Secondly, he traces economic evils to political causes; the French and Irish had a better soil than the English, but no spirit of freedom, and were therefore backward (*Fr.*, i. 80; *Ir.*, ii. 55). LAVERGNE pointed the converse moral as to England (1855). The French Land Tax discouraged improvements, and, as T. Campbell (1777) said, *Phil. Survey*, p. 251, the Irish anti-Catholic laws penalised industry but not religion (*Ir.*, ii. 66). His belief that "government" was the "one all-powerful cause" (*Fr.*, i. 43) of that misery which he saw, is the secret of his optimistic forecast; and sometimes he expresses pure LAISSEZ-FAIRE doctrines. Thus he writes: "The sole policy . . . is freedom; let the state take no party" as between agriculture and manufactures (p. 437); he argues for "absolute freedom" (pp. 573, 625), and his proofs that French measures, meant to avert, created famine (pp. 489-498, 625, etc.), and that Irish measures, meant to stimulate, discouraged the wool and silk trade (*Ir.*, ii. 133), and that the Irish bounty on linen was an impertinence, and that on inland carriage of corn was an extravagance (pp. 157-188), are worthy of A. SMITH at his best; but he does not quote A. Smith here, nor, we believe, elsewhere, except as a historian of prices. He wishes the state to be neutral as to small farms (*Fr.*, i. 407, but see p. 417; comp. *Annals*, vii. 510), and "diffused," *i.e.* integrated, village industries (*Fr.*, i. 573; *Ir.*, ii. 216), although both, he thought, weakened Ireland and France. Segregated or town manufactures were his ideal as well as that of STEUART. But all this wisdom illustrated by example came to him only through his eyes; and when it clashed with another empiric truth, *e.g.* the truth—traced by him to DAVENANT (why not Sir W. TEMPLE?), but based on his own English, Irish, and French comparative statistics—that high rents, prices, and wages are signs (he once wrote "causes," *Northern Tour*, iv. 343, 376) of wealth, the man who wrote "a free import and export" of corn "would be the very best police of that commodity" (*Annals*, iii. 419; *Ir.*, ii. 338) began to dread American competition (*Pol. Ar.* (1774), p. 279), and with MALTHUS resisted the free-trade movement championed by RICARDO. The comparative statistics referred to demonstrated what J. TUCKER argued *a priori* that "labour is generally in reality the cheapest where it is nominally the dearest" (*Fr.*, i. 565), *i.e.* in England; and so with rents.

Young's English, like his French and Irish tours, fall roughly into two divisions: first a diary, then a summary. But the English tours are non-political, and are rather notes for books than books. The English tours suggested those of MARSHALL and SINCLAIR, and all these suggested the English *Reports*, the *enquêtes* of the French directorate, and the surveys authorised by the Irish House of Commons, 10th March 1800. The *Reports* contain a summary and no diary. Most of each report treats of practical husbandry, including ch. vi. on enclosures. Of the rest the first chapter is on physical geography; chaps. ii. and iv. are juristic, and relate but somewhat meagrely to tenures, leases, YEOMEN, etc.; chaps. xiv. and xv. are economical in title, and give statistical data as to wages, *e.g.* of the boarded farm servant whom he preferred, and who was then disappearing; population, which he thought increasing; farmers' capital, which he thought should be £5 an acre; rent, usually ⅓ of the gross produce; and net profits, *i.e.* the amount taken "free" of rent, tythe, rates, etc., to market. Apropos of poor rates, he notes that "box clubs" and the policy of "three acres and a cow" did, and that workhouse manufactures and pauper allotments did not, decrease poor's rates. Apropos of population, he proposed a census in his *Proposals to the Legislature for Numbering the People*, 1771; and believed that no country had too few, though some, *e.g.* France, had too many people (cp. WALES). On slave-labour, parish settlement laws, relief to large families, and radicalism as opposed to whiggery, his conclusions are those of Tucker, but his method is always different.

[The following are references to A. Young:—

(1) By *agronomists*:—J. Anderson, *Essays* (1796), iii. 4.—P. Balsamo, *Memorie inedite* (1845), pp. iv. 2, 8, etc.—E. Caird, *English Agriculture* (1850), pp. ix. 144, etc.—A. Coventry, *Discourses* (1808), p. 187.—Léonce de Lavergne, *Rural Economy of England, Scotland, and Ireland* (1855), pp. 11, 146, 148, 343, etc.; Pref. to French translation of *Travels in France* (1860); *Économie rurale de la France*, 2nd ed. (1861), pp. 23, 50-59.—J. R. M'Culloch, *Statistical Account of the British Empire*, 4th ed., 1854 (contains many extracts from *Reports*).—J. Simonde de Sismondi, *Agriculture Toscane* (1801), pp. 4, 13, etc.—A. D. Thaer, *Englische Landwirthschaft: Einleitung* (1798), pp. 40-63; *Beiträge* (1800), vol. ii. pp. 254-264.—E. Wakefield, *Account of Ireland* (1812).—D. Zolla in Say et Chaillet, *Dict. d'Éc. Pol.* (1892).

(2) By juristic historians:—G. Hannsen, *Agrarhistorische Abhandlungen* (1880), vol. i. pp. 484 *et seq.*—Sir H. Maine, *Early History of Institutions* (1875), pp.

121 *et seq.*—A. Meitzen, *Siedelung und Agrarwesen der West Germanen* (1895), vol. ii. p. 129.—E. Nasse, *Agricultural Community of the Middle Ages* (1871), pp. 3 *et seq.*—J. Rae, "Why have the Yeomanry Perished?" in *Contemp. Rev.* xliv. 546.

(3) By writers on *Poor Law*:—J. Bentham, *Pauper Management*, Pref.—J. Bonar, *Malthus and his Work*, p. 380.—W. Cunningham, *Growth of English Industry* (1892), ii. 507.—F. M. Eden, *State of the Poor* (1797), vol. i. pp. 340, 485.—Sir G. C. Lewis, *Local Disturbances in Ireland* (1836), p. 56.

(4) By social historians:—A. Babeau, *La vie rurale dans l'ancienne France* (1883).—Cunningham, Lecky, and Sir G. C. Lewis, *ubi supra*.—H. Traill, *Social England*, vol. v. (1896), 452-459.

(5) By statistical historians:—Chalmers, *Estimate* (1782), pp. 178, 179.—W. Cunningham, *l.c.*, vol. ii. p. 691.—A. de Foville, *Le morcellement* (1885).—W. E. H. Lecky, *Hist. of Eng.* (1883-90), vol. i. p. 568; vol. v. p. 384; vol. vi. p. 190.—R. Prothero, *l.c.*, pp. 269, 281.—J. E. T. Rogers, *Industrial and Commercial History* (1892).—H. v. Sybel, *French Revolution*, trans. by Perry, vol. i. pp. 23, 25, 27, 30, 37, etc.—Tooke and Newmarch, *Hist. of Prices* (1857), vol. vi. pp. 386-392.] J. D. R.

[Young was a Suffolk man, he passed his boyhood and much of his later life at Bradfield, near Bury St. Edmunds, an estate which remained in his family till 1896. The influence of his surroundings is visible in all his writings.]

YOUNG, MAJOR GAVIN, of the Bengal army, described by M'Culloch as "a gentleman of talent and varied attainments" (*Literature of Political Economy*, p. 109), wrote:

Observations on the Opinions of several Writers on various historical, political, and metaphysical Questions, Calcutta, 1817, 8vo (contains articles on "Funding System," "British Finance," and "Distinction between Productive and Unproductive Labour").—*An Inquiry into the Expediency of applying the Principles of Colonial Policy to the Government of India*, London, 1822, 8vo.—*A Further Inquiry into the Expediency, etc.*, London, 1827, 8vo (both anonymous; to induce Englishmen to settle in India).—*An Essay on the Mercantile Theory of Wealth*, Calcutta, 1832, 8vo (defending the theory). H. R. T.

ZACHARIAS, OTTO (19th century), a doctor in Silesia, wrote:

Die Gefürhdung der socialen Wohlfahrt durch die zu fruhen Eheschliessungen der Besitzlosen (1880).

ZACCHIA, L. (17th century). An Emilian jurist.

Zacchia was the author of a Latin treatise on wages which deserves mention for the rarity of the consideration of that subject in the days when he wrote. He distinguishes different forms of wages, but he was unable to make a comprehensive study of a phenomenon, such as wages, which was the exception at that time; the two distinct classes—workmen and employers—not being then fully formed. Zacchia regards wages as the reward for any description of work, and he gives very little thought to workmen's wages. He limits himself to the statement that an adequate wage is fixed by a monarch or by law, by custom or contract, and failing these by a judge, who in fixing them should take account of the ability of the workman, the quality of his work, and the price of food. Zacchia studies the judicial effects on wages of alterations in the value of money.

Tractatus de salario seu operariorum mercede, 1658.

[See Graziani, *Le idee economiche degli economisti emiliani e romagnoli*, 1893.] U. R.

ZANON, ANTONIO (1696-1770), was born at Udine, and was a merchant, a manufacturer, and student of economics. In Friuli he improved the cultivation of the mulberry-tree and the silk trade, and established a silk manufactory in Venice. He founded the *Società Georgica* in Udine for the promotion of agriculture.

Zanon left many letters and works on agrarian economics, agriculture, and commerce, and the silk industry; all his works were reprinted in nine volumes in Udine (1828-1831). Theoretically he followed the school of GENOVESI, that is to say, he advocated a moderate mercantilism, but his writings are chiefly of practical importance.

Dell' agricoltura, arti, commercio, ec., Lettere, 1763-67.—*Della utilità morale, economica e politica delle accademie di agricoltura, etc.*, 1771.—[See Errera, *Storia dell' economia politica nei secoli XVII e XVIII negli Stati della Repubblica Veneta*, 1877; Piemonte, *Antonio Zanon, economista friuliano*, 1891.] U. R.

ZECCHI, LELIO (1532-1610).

A political writer and theologian of Brescia.

In his writings he discusses various economic subjects; his treatise on usury traces usury in different contracts and in its different forms, according to the strict ideas prevailing in his day.

His work on the political method to be followed by a monarch bears on the question of food-supply—he advocates encouraging agriculture, the import of provisions, fixed prices for food, and the infliction of penalties on monopolists; further he would promote the arts, forbid the export of raw material and the emigration of skilled artisans.

On the subject of taxation and its different forms he gives the preference to the CENS (*q.v.*) or general taxation of hereditary estates; this opinion was also held by MANCINI, and was traditional in Italy, based on the still surviving conception of the Roman census and the theory of taxation as interpreted and carried out by the Italian communes in the middle ages. He perceives, without thoroughly understanding it, the fact—so obvious to us—that increase of population depends on the increase of the means of subsistence.

Tractatus de usuris, 1598.—*Politicorum, sive de principe et principatus administratione*, 1600.—*Libri tre, authore Lelio Zechio, theologo*, Verona, 1600.—*De juribus principatum*, Verona, 1603.

[See Supino, *La scienza economica in Italia, etc.*, 1888.—Gobbi, *L' economia politica, etc.*, 1889.—Ricca Salerno, *Storia delle dottrine finanziarie in Italia*, 1881.] U. R.

ZECCHINO. See SEQUIN.

ZEMINDAR (literally "landholder"), denotes the Indian farmer of a LAND-TAX, who between the Mughal and British conquests

claimed lordship over the soil. The land-tax was, in the laws of Manu (500 B.C.), a right to ⅛th produce, under the Mughal laws to ⅓rd value of the produce of the soil. The farmer retained, say ⅒th the land-tax, and was appointed for life, but his son or sons succeeded on paying fines. As the central power decayed he usurped hereditary rights, rights to the soil, and to make arbitrary levies on its occupants.

The first British land settlement was that by Lord Cornwallis (1793) of Bengal; in which he treated with large zemindars, each of whom was regarded as owning a village or several villages, including the waste, but excluding certain free, or nearly free estates, called "taluq," carved out of the larger unit. The chief flaws in this scheme were that (1) it was permanent (permanent settlements were finally condemned in 1882); (2) it alienated the waste (see Sir J. Caird, *India, the Land and the People*, p. 95); and (3) ignored (*a*) the status of the RYOT—whom it regarded as an English tenant prior to the Agricultural Holdings Acts, but whom subsequent legislation in 1859 and 1885 has turned into something like the English copyholder; (*b*) and the relation of co-proprietors in village communities.

In the village community—from which Sir H. Maine tries to derive other forms of tenure, but which is unknown in the laws of Manu—a group of families are found who take rent or services from the artisan officials; and sometimes the dominant group employ others to plough, etc. They exist all over the North-West Provinces and Panjab. There the state treats with the community—represented by its council of elders,—but usually makes one member stand surety for the rest. The state reserves a fraction, usually ⅛, of what we should call the total fair rents of the village, including waste. This tenure is called "Zamíndárí mushtarka"; settlements like that of Bengal being called Zamíndárí Khális"; but the settlement is usually called "Mahál," village, to distinguish it from the individualism of the normal "Zamíndárí" settlements. In Oudh both forms of settlement are sometimes applicable to the same area.

Economists adduce facts such as these to show that in the beginning there was no difference "between the power which gives the right to tax and the power which confers the right to exact rent" (H. Maine, *Village Communities*, 1876); that "the distinction between a tax and a rent is merely "a matter of amount" (Sir G. Campbell in *Systems of Land Tenure* (Cobden Club), p. 219); that is to say, either to deduce rents from taxes, or, with Richard JONES, *Literary Remains* (1859), pp. 279-290, taxes from rent.

[B. H. Baden Powell, *Land Revenue and Tenure in British India* (1894) (the best short account); *Land Systems of British India*, 3 vols. (1892); *Indian Village Community* (1896); and Sir G. Campbell, *ubi supra*. Yule and Burnett's *Hobson Jobson*, a glossary of Anglo-Indian words.] J. D. R.

ZERBI, GIOVANNI ANTONIO (16th century). A Milanese merchant.

During his travels he studied the Spanish and Sicilian banks, especially the bank of San Giorgio of Genoa (BANKS, EARLY EUROPEAN), and conceived the idea of establishing a similar bank in Milan; he wrote three dialogues on this subject. In the first, Zerbi proposes the establishment of banks in general, in the second he explains their organisation, and in the third he completes his explanation by illustrating the advantages of the institution he proposes. On the general theory of money he falls into serious errors. The results of the bank of Sant Ambrogio, promoted by Zerbi, were very unsatisfactory; it was started in 1598, and was almost bankrupt in 1630; it was then converted into an office in connection with the public debt.

Dialogo del Banco de Santo Ambrosio, 1593 (and two other dialogues on the same subject, 1597 and 1599).

[See Cossa, *Introduction to the study of Political Economy*, 1893.—Gobbi, *L' economia politica, etc.*, 1889.—Greppi, *Il banco di S. Ambrogio*, 1883.] U. R.

ZINCKE, Rev. FOSTER BARHAM (1817-93), vicar of Wherstead, near Ipswich, from 1847 to his death; greatly interested himself in educational and latterly in economic and agricultural questions, to which his books of travel are specially devoted; wrote:

Last Winter in the U.S., Lond., 1868, Crown 8vo.—*Egypt of the Pharaohs and of the Khedive*, 2nd ed., Lond., 1873, 8vo.—*A Month in Switzerland*, Lond., 1873, crown 8vo.—*Swiss Allmends, or a Walk to see Them*, Lond., 1874, crown 8vo (an investigation into the Swiss commonable land).—*A Walk in the Grisons, being a Third Month in Switzerland*, Lond., 1875, crown 8vo (the industry, thrift, and helpfulness of the Swiss peasant proprietors).

[*Athenæum*, Aug. 26, 1873, p. 290.] H. R. T.

ZINCKE, GEORG HEINRICH (1692-1769), was born in the neighbourhood of Naumburg. After a complete theological course he studied law and cameral science, and entered first the Prussian service, and afterwards that of Weimar, where, however, he fell into disgrace, and suffered imprisonment with confiscation of his property. From 1740 to 1745 he delivered lectures in the university of Leipzig, and in 1746 was appointed curator of the recently established Collegium Carolinum at Brunswick, where he died.

Zincke has the distinction of having founded and conducted the first valuable economic journal which appeared in Germany, the *Leipziger Sammlungen von wirthschaftlichen, Polizei- und Finanz-Sachen*. Besides the many articles he contributed to this journal, he published, amongst other works, *Grundriss einer Einleitung zu der Cameralwissenschaft*, 1742; a cameralistic bibliography 1751, and two dictionaries, one of *General Economy*, 1742,

of which the 7th ed. appeared in 1820, and the other of *German Trade and Manufactures*, 1745.

Zincke exhibits a reformed mercantilism, such as was preached in France by FORBONNAIS; he even shows tendencies towards the new doctrine which was destined to supplant it. He holds that a country does not necessarily lose by the export of the precious metals. He sets himself against the extravagances on the subject of population which afterwards prevailed in his school, and accentuates the importance of agriculture as a source of national wealth more than the members of that school commonly did.

[Roscher, *Gesch. der N. O.*, p. 432.] J. K. I.

ZOLLVEREIN (*Customs Union*), a word practically adopted into the English language to express the idea of a customs union. The name was originally given by the Prussians to the union which, under the treaty of March 1833, they formed with various independent German states (in the first instance Hesse Cassel, Hesse Darmstadt, Bavaria, and Würtemberg) for the purpose of establishing a uniform tariff against the outside world. Up to that time each of these states had levied its own customs duties, and had treated the neighbouring states just as it treated the most distant countries. Under the compact on which the zollverein was based all these states undertook to abolish import duties between one another, and adopt a common tariff of import duties as against the rest of the world. This is the essence of a customs union, which is designed to break down interprovincial restrictions, and to simplify commercial intercourse. The Zollverein is still one of the best instances of a customs union, because it comprised several states, and the effect at which it aims is clearer, the greater the number of restrictions abolished.

There are, however, several instances where a small state has grouped itself with a larger state for customs purposes. There is a customs union of San Marino with Italy under treaty of 22nd March 1862; of Monaco with France under treaty of 9th November 1865; Lichtenstein with Austria under treaty of 11th December 1875; Portuguese India with British India, 26th December 1878.

The most complete attempt to form a customs union in recent years has been the South African customs union of 1889. The original members of this were two only, Cape Colony and the Orange Free State, but British Bechuanaland, Basutoland, and the British Bechuanaland Protectorate successively joined. In this case there is no continuity of land-frontier, and there is the peculiarity that one of the members is actually a foreign state; but the essence of the union is the same—free trade between the members of the union, and on the external boundary of the union one customs tariff as against the rest of the world.

The terms "Zollverein" and "Customs Union" have been frequently used during the past ten or twelve years in connection with projects for the closer commercial union of the British Empire; but they have almost always been used loosely without any true sense of the conditions which they import. No definite proposal has as yet been publicly formulated for placing all the parts of the empire under one tariff. In 1887, at the colonial conference, Mr. Hofmeyr for the first time developed a scheme for a uniform extra differential duty upon all foreign imports. In 1891, in the House of Lords, Lord Dunraven formally pressed the same sort of scheme. In 1894 at the Ottawa conference the possibility of special customs arrangements for the empire was discussed at length. These discussions belong rather to the question of FEDERATION, COMMERCIAL (*q.v.*). C. A. H.

ZUCCOLO, LODOVICO (17th century), a political writer of Faenza.

His *Dialoghi* form an interesting discussion on socialistic ideas; he asserts, with some spirit, that moderate wealth is essential for citizens, and in order to maintain this, he would prohibit the sale or mortgage of farms on the part of citizens with small fortunes. He understands the relations between the division of wealth and the increase of population, and points out the rapid increase of the latter; he considers that to equalise wealth would be an adequate remedy for the difficulties which might arise from over-population. Zuccolo criticises the *Utopia* of Thomas MORE, expressing the opinion that such a republic could only exist if all men were good and just; he gives a plan of an ideal state of things, as he would desire to see them—but not based on economical communism.

Dialoghi, 1625.

[See Gobbi, *L' economia politica, etc.*, 1889.—Graziani, *Le idee economiche degli scrittori emiliani e romagnoli*, 1893.] U. R.

ZUNFT is the term commonly employed by modern German writers for what English writers usually call a "craft gild"; and "Zunft-System" is used in the same general sense as "gild system" (see CORPORATIONS OF ARTS AND TRADES, *Germany;* and GILDS). The word itself, however,—which is variously explained as originally meaning "order" or "gathering,"—was specifically High German, and was unknown in North Germany until the Reformation. In North Germany its place was taken by *Amt*, *Gilde*, and other terms. In South Germany, moreover, if we may generalise from the policy of the authorities of Nuremberg in the 16th century, *Zunft* was understood to imply a degree of autonomy in matters of trade regulation which the organised craft or *Handwerk* was not always allowed to exercise, and in such cases the term was sedulously avoided.

[An excellent brief account and history of the *Zunftwesen* will be found in the article under that title by W. Stieda in Conrad's *Handwörterbuch der Staatswissenschaften*, vi. On the term itself cp. Ashley in *Political Science Quarterly*, xii. 129.] W. J. A.

LIST OF ABBREVIATIONS USED IN INDEX.

Afr. = Africa
Afrn. = African
Amer. = America
Amern. = American
anc. = ancient
appl. = applied
arith. = arithmetic
arithl. = arithmetical
assoc. = association

Brit. = Britain, British

calcul. = calculation
centy. = century
char. = character
circ. = circulation
Co. = Company
compd. = compared
conn. = connected
const. = constitution
crit. = criticism
curr. = currency

Decl. = Declaration
decr. = decrease
decrg. = decreasing
def. = definition
deprec. = depreciation
diff. = difference
diffic. = difficulty
dimin. = diminishing
disadv. = disadvantage
disorgn. = disorganisation
dist. = distinguished
distr. = distribution
divis. = division
doctr. = doctrine

E. = east
econ. = economic, economics
Eng. = England, English
estab. = established
Eur. = Europe, European
expln. = explanation

Fr. = France, French
fr. = from

Ger. = German, Germany
gov. = government

hist. = history
Holl. = Holland

illustr. = illustrated
illustn. = illustration
inconv. = inconvertible
incr. = increase
Ind. = India, Indian
indep. = independent
infl. = influence
inher. = inheritance
instr. = instrument
int. = interest
introd. = introduced
introdn. = introduction
invd. = invented
Irel. = Ireland
irreg. = irregular
Ital. = Italian

jnt.-stk. = joint-stock

legisl. = legislation
liab. = liability

medvl. = mediæval
Merc. Syst. = Mercantile System
meth. = method
mod. = modern

N. = north
N.W. = north-west

Parlt. = Parliament
parly. = parliamentary
P.E. = political economy
princ. = principles
prodn. = production
prohib. = prohibition
Prot. = Protestant
protn. = protection

qual. = quality
quant. = quantity
quest. = question

reguln. = regulation
rel. = relation
restrd. = restricted
restrns. = restrictions
R.C. = Roman Catholic
Russ. = Russia, Russian

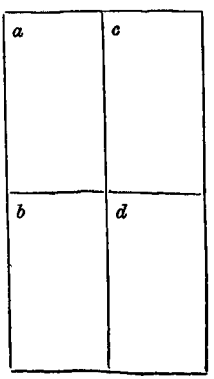
Sch. = School
sci. = science
Sc. = Scotch
Scot. = Scotland
secs. = securities
S. = south
Span. = Spanish
stan. = standard
stk. ex. = stock exchange
suspn. = suspension
Switz. = Switzerland
syst. = system

U.K. = United Kingdom
U.S.A. = United States of America

W. = west
wh. = which

Names of persons noticed in the Dictionary appear, in the index, in small capitals, as J. S. MILL; titles of other articles in heavy type, as **Value**; foreign words, not being titles of articles, and names of books, in italics, as *Villa*, *Wealth of Nations*. A colon indicates the end of the index-heading: individual references are separated by a semicolon; groups of references by .—

In each reference the number indicates the page, while the letter indicates a *division* of that page; *a* and *b* referring to the *upper* and *lower* halves of the *left*-hand column, *c* and *d* to the *upper* and *lower* halves of the *right*-hand column. Thus, Absentee: Evils of, i. 3 *d*, refers to volume i. page 3, the lower half of the right-hand column. The diagram subjoined shows the method followed:—



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U. R.	Ugo Rabbeno, sometime Professor of Political Economy at the University of Modena.
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W. R.-A.	Professor Sir W. Roberts-Austen, F.R.S., Royal Mint, Tower Hill.
A. E. S.	A. E. Stamp, M.A., Public Record Office.
A. L. S.	A. L. Smith, M.A., Fellow of Balliol College, Oxford.
C. A. V. S.	C. A. Verrijn Stuart, Secretary of the Central Commission of Statistics, The Hague, Holland.
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T. G. S.	T. G. Spyers, B.A., late Demy of Magdalen College, Oxford, Barrister-at-Law, Inner Temple.
W. S.	William Smart, M.A., Lecturer on Political Economy, Queen Margaret College, Glasgow.
W. A. S.	W. A. Shaw, Public Record Office.
W. A. SP.	Rev. W. A. Spooner, M.A., Fellow and Tutor of New College, Oxford.
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J. W.	J. Westlake, Q.C.
P. W.	Paul Waterhouse, M.A., A.R.I.B.A., Balliol College, Oxford.
P. H. W.	Rev. P. H. Wicksteed, M.A.
S. W.	Spenser Wilkinson, M.A., late of Merton College, Oxford.

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Printed by R. & R. Clark, Limited, *Edinburgh.*

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on 27 November, 2018